CHAPTER 12
TACTICAL ENABLING OPERATIONS

Tactical enabling operations are specialized missions that are planned and conducted to achieve or sustain a tactical advantage; they are executed as part of an offensive, defensive, stability, or support mission. The fluid nature of the modern battlefield increases the frequency with which the TF must plan and execute enabling operations such as passage of lines, relief operations, obstacle reduction, linkup operations, and high-value asset security. At the TF level, digital systems such as FBCB2 and ABCS facilitate the planning and execution process of these often complex and decentralized operations. This chapter establishes techniques and procedures unique to the TF that can be applied to these specialized missions.

Section I. RELIEF OPERATIONS

A relief is an operation in which one unit replaces another in combat. The incoming unit assumes responsibility for the mission and the assigned area of operation. A relief-in-place may be conducted at any point during offensive or defensive operations. Relief operations are normally executed during limited visibility to reduce the possibility of detection. FBCB2 enhances the planning and execution of relief operations while the BCIS aids in differentiating friendly from enemy as units conduct the linkup and passage of lines. This greatly reduces fratricide potential and expedites forward movement since the relieved force can monitor the progress of the linkup force and provide protective fires or adjust fire control measures predicated on the speed with which the linkup force is moving. To facilitate and ensure successful operations, the linkup and relieved force commanders and staffs exchange as much information as possible to prevent the inadvertent engagement of friendly forces by either direct or indirect fire systems during relief operations. Digitally equipped units can pass this information through an exchange of FBCB2 overlays that clearly define friendly positions, fire support control measures, obstacles, linkup points, and signals. Nondigitized units should exchange this information through liaison personnel and conventional acetate overlays. Collocation of CPs for both types of units is recommended.

12-1. PLANNING CONSIDERATIONS

Upon receipt of the order to conduct the relief, the incoming TF commander and staff establish continuous liaison with the stationary unit through an exchange of liaison personnel or a digital exchange of information pertinent to the relief operations. Commanders and staffs emphasize communications, reconnaissance, and transfer of command. If possible, the incoming unit should collocate with the main CP to facilitate continuous information exchanges relative to the occupation plan, fire support plan, and intelligence updates that include past, present, and probable enemy courses of action. Although digitization allows coordination without physically locating together, face-to-face coordination reduces any potential misunderstandings related to relief preparation or the forthcoming operations. Before contact with the stationary unit, the relieving force digitally receives the maneuver graphics, fire plan, and current enemy situation by way of

FBCB2 or MCS overlays. Responsibility for the area is transferred as directed by the senior common commander, normally when the incoming unit has a majority of his fighting force in place and all communications systems (voice and digital) are operating. When planning the relief, the staff should consider the realities of risk management and fratricide avoidance (Appendix D) in determining the most appropriate method for executing the relief.

a. **Relieving Units One at a Time**. This method is the most deliberate and time-consuming. It involves sequentially relieving maneuver company teams one at a time. Separate routes to the rear of the relieved company teams' locations are planned for each maneuver company team and placed on the operations overlay. To avoid cluttering the FBCB2 display, only the routes of the relieving force are included on the operations overlay. Routes are labeled sequentially and correspond to the order in which the company team executes them during the relief. When the lead company team reaches its RP, its platoons move to the positions they are occupying. Crews exchange range card and fire support information, and the relieved unit then moves to the rear to its next location. When the lead company team is in position, the next company team moves along its designated route to relieve its counterpart, repeating the relief process. This process repeats until each company team has been relieved. If transfer of supplies from the relieved unit is directed, the S4 coordinates a transfer point to execute the exchange.

b. **Relieving Units at the Same Time**. This method is the fastest, but it risks revealing friendly unit intentions. To expedite the relief, the in-place TF prepares FBCB2 overlays to depict current friendly graphics, fire support measures, and the latest enemy situation update. They pass these overlays to the relieving force before the two forces make contact. Once the command groups collocate and exchange plans, relief occurs at the same time at each location. The units of the relieving and relieved TFs execute a move at the same time along different routes. Relieved units withdraw as soon as they are relieved and do not wait for other units of the TF to be relieved. The control measures at the TF level are identical to those used for a sequential relief (one unit at a time).

c. **Relieving Units by Occupying In-Depth and Adjacent Positions**. This technique requires sufficient terrain to accommodate positioning of two like-sized units at the same time. In this case, the relieving unit must locate where it can observe and provide protective direct and indirect fires for the relieved unit using the relieved units' fire plans. This procedure requires that relieving company team and TF commanders conduct a detailed physical reconnaissance of the BP with their counterpart from the in-place unit. They enter information gathered from the physical reconnaissance (for example, BPs, TRPs, and routes into and out of the area) on FBCB2 operations overlays and share them throughout the relieving unit during the planning and troop-leading procedures (TLP) process.

12-2. CONDUCTING THE RELIEF

Execution of the relief follows one of the three previous techniques. During the relief, the command group and the staff in the main CP monitor the progress of the relief through FBCB2. To facilitate uninterrupted fires to support the relief, indirect fire assets should be the last units relieved regardless of the relief technique used. Throughout this process, the TF may have to observe radio-listening silence until control of the position passes to the commander of the relieving force. When the company teams are set and the relieved

unit withdraws from the BP, company team commanders send the S3 an FBCB2 SPOTREP indicating that the company team is defending.

12-3. COMMAND AND CONTROL

If either force gains direct fire contact with an enemy force, it immediately notifies the other unit and the higher headquarters by way of FM voice communications. It then follows this voice report up with an FBCB2-generated contact report or SPOTREP so that the precise location of the enemy force (enemy icon) is displayed on FBCB2. If responsibility for the sector has not passed, the relieving unit becomes OPCON to the relieved unit. The assets and staff of the relieved unit become OPCON to the relieving unit when the responsibility for the sector has passed to the relieving TF.

Section II. SECURITY OPERATIONS

The purposes of security operations are to provide early and accurate warning of enemy operations, to provide the protected force with time and maneuver space to react to the enemy, and to develop the situation to allow the commander to employ the protected force effectively. Units may conduct these operations to the front, flanks, or rear of a larger force. Security operations provide reaction time, maneuver space, and protection to the main body. Security operations are characterized by aggressive reconnaissance aimed at reducing terrain and enemy unknowns, gaining and maintaining contact with the enemy to ensure continuous information, and providing early and accurate reporting of information to the protected force. Security operations forces orient in any direction from a stationary or moving force. Security operations are designed to deny the enemy intelligence information concerning the TF. Security operations contain both passive and active elements and normally include combat action to seek, destroy, or repel enemy reconnaissance units. The TF performs three primary types of security missions: screen, guard, and area security. The TF normally participates in covering force operations only as part of a larger element.

12-4. SCREEN

The primary task of a screening force is to provide early warning. It observes, identifies, and reports enemy actions. A screen provides the least amount of protection of any security mission. Generally, a screening force engages and destroys enemy reconnaissance elements within its capabilities but fights otherwise only in self-defense.

a. **Task Force Screen**. At the TF level, the scout platoon normally performs screen missions. When the terrain provides multiple enemy avenues of approach, the TF commander may attach the scout platoon to a company team to conduct a screen. The screening force generally establishes a series of OPs and conducts patrols to ensure adequate surveillance of the assigned sector.

b. **Company Team Screen**. A company team may be directed to conduct a screen in support of TF offensive and defensive operations. When given a forward screen mission, the company team moves as in a movement to contact.

c. **Planning a Screen**. When assigning a screen mission to a company team, the TF commander will designate the general trace of the screen and the time it must be established. The initial screen line should be forward of the general trace but remain

within range of supporting artillery and TF mortars. Screen lines are depicted as phase lines; passage graphics are included in the overlay.

(1) Designate the left and right limits of the screen as well as a phase line for the near boundary. This phase line can also become the on-order battle handover line.

(2) Confirm which unit has responsibility for the area between the screening force's rear boundary and the MBA. This should be the company team that occupies the sectors behind the screen.

(3) Designate general locations for OPs that enable observation of the avenues of approach into the sector.

(4) Select routes or sectors to facilitate rearward displacement.

(5) Augment the security force as needed to provide intelligence, engineer, air defense, signal, and combat service support.

d. **Intelligence Support**. The S2 designates which NAI the company team must observe and when. The S2 does not dictate the location of company team elements nor how the company team maintains surveillance of the NAI. If GSRs operate under TF control to support the security effort, the S2 positions these assets and integrates their locations and missions with the security action of the screening company team. Once the screen force commander positions his elements, he informs the S2 of their primary, alternate, and subsequent locations.

e. **Maneuver**. Generally, the best unit configuration for the screen mission is a mechanized infantry company team. The ability to place infantry rifle squads on the ground and conduct surveillance operations and active patrolling is an essential passive aspect of the screen mission. The tank platoon may be employed to destroy the enemy's reconnaissance vehicles during the counterreconnaissance fight.

f. **Fire Support**. The FSO prepares for the screen mission as he would for a forward defense. He uses the enemy situation template as a guide to plan fires to interdict enemy maneuver elements. He plans protective fires for all screen force positions; this helps prevent screening force elements from becoming decisively engaged with the enemy. Accurate indirect fire is essential to the destruction of the enemy reconnaissance effort. The FSO conducts a time-distance analysis covering the enemy's probable rate of advance and the time of flight of artillery or mortars. If available, Striker teams from the BRT may be added to the screen force for use against enemy vehicles.

g. **Engineer Support**. Generally, the engineer effort is dedicated to the TF's main defensive area. If available, some engineer effort may be dedicated to the forward screen. This may include engineer squads or sections attached with the screen force to emplace obstacles or allocation of FASCAM to the screen force. The obstacle intent is to disrupt enemy reconnaissance elements forward of the main battle area. Typically, the disrupt obstacles that are emplaced are conventional point minefields, MOPMS, Hornet, or wire obstacles that are overwatched by observers and targeted by indirect fire assets.

h. **Logistics**. The logistics planner must plan for responsive and flexible support that may require the immediate resupply of ammunition and evacuation of casualties and equipment upon contact. Lateral supply routes to each battle position are identified during the planning process. Moreover, on-order control measures, LRPs, UMCPs, and AXPs are essential to the operation. Emergency resupply vehicles carrying ammunition, fuel, and other quickly expendable supplies are prepared to respond to sudden requisitions due to enemy contact.

12-5. GUARD

A guard mission is assigned to protect the force by observing the enemy, reporting pertinent information, and fighting to gain time. The guard force differs from a screen force in that it contains sufficient combat power to defeat, repel, or fix the lead elements of an enemy ground force to prevent it from engaging the main body with direct fires. The guard force normally deploys over a narrower front than a comparably sized screening force, allowing greater concentration of combat power. The guard force routinely engages enemy forces with both direct and indirect fires and operates in range of the main body's indirect fire weapons. The guard force commander must understand fully the degree of security his unit provides the larger unit. This understanding is critical because, as the battle progresses, the higher unit commander may require the degree of security to change (for example, from early warning to detailed and aggressive security for the main body). There are three types of guard operations conducted in support of a stationary or moving friendly force (Figure 12-1): rear, flank, and advance guard.

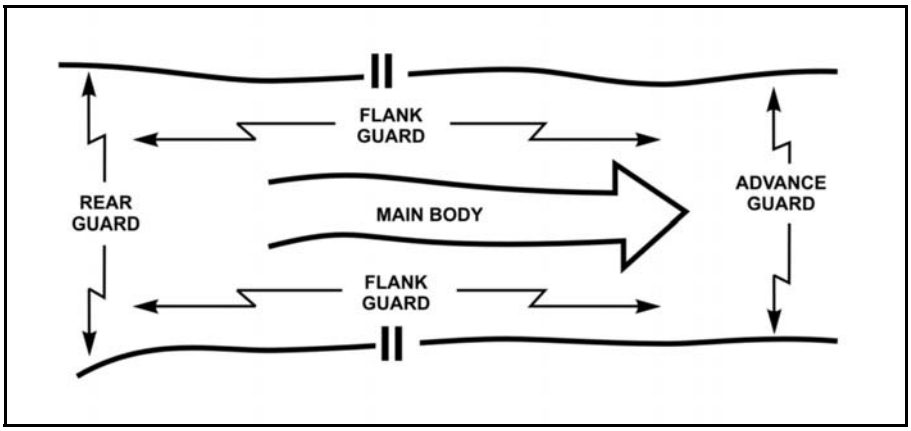

Figure 12-1. Rear, flank, and advance guard operations.

a. **Advance Guard**. The advance guard moves ahead of the main force to ensure its uninterrupted advance, to protect the main body against surprise, to facilitate its advance by removing obstacles and repairing roads and bridges, and to cover the deployment of the main body as it is committed to action. The advance guard is a task-organized, combined arms unit or detachment that precedes a column or formation.

(1) The advance guard is normally conducted as a movement to contact. Generally, a TF receives an advance guard mission when the brigade moves as part of the division main body in a movement to contact. In deploying an advance guard, the brigade ensures the TF has priority of fires from the DS artillery battalion. Unlike a movement to contact, however, the advance guard clears the axis of enemy elements, within its capability, to allow the unimpeded movement of the main body TFs. The advance guard develops the situation to hand over the enemy to the TF.

(2) Based on METT-TC, trail elements of the advance guard must ensure they maintain adequate distance forward of the main body's lead elements to ensure freedom of maneuver for the main body. These distances are reduced in close terrain and in low visibility conditions. The TF commander establishes phase lines to control the movement of the main body and the advance guard. Further, the TF commander must take into consideration the range of supporting indirect fires.

(3) The advance guard force attempts to destroy enemy forces through hasty attacks. It may be necessary for the TF to mass at certain locations, destroy the enemy, report, and continue with its mission. If enemy resistance is well prepared and cannot be destroyed, the TF reconnoiters to identify a bypass route for the main body, to report enemy size and location, and (when given permission) to fix and bypass the enemy. The follow on attacking forces are responsible for destroying the bypassed enemy. The main body commander may elect not to bypass the enemy but to conduct an attack. In this case, the advance guard keeps the enemy contained and prepares to pass main body elements through to eliminate the enemy.

b. **Rear Guard**. When a division conducting a movement to contact requires rear security, a TF may receive a rear guard mission. The rear guard protects the rear of the main body and all CS and CSS elements in the main body. It may accomplish this by conducting an attack, a defense, or a delay. A TF conducting a rear guard operation follows the same axis of advance as the protected force at a distance prescribed by the main body commander and normally within artillery range. The TF commander establishes company team battle positions or AOs. When using AOs, he designates phase lines and checkpoints to control movement. The rear guard's responsibility begins at the main body rear boundary and extends as far from this boundary as the factors of METT-TC allow.

c. **Flank Guard**. A TF may receive a flank guard mission during a division movement to contact. The flank guard is responsible for clearing the area from the division main body to the flank guard's designated positions. The TF must be prepared to operate on a frontage that is greater than for other tactical operations. Usually, the area extends from the lead forward screen, along the flank of the formation, to either the forward edge of the battle area or the rear of the moving formation, tying in with the rear guard. Due to the complexities of this operation, the following detailed discussion of flank guard operations is provided.

(1) ***Templates and Analysis***. Once the TF receives a flank guard mission, the S2 determines the type of threat facing the TF during its movement. This information is critical to the commander in his selection of appropriate formation and movement techniques. The IPB must incorporate the entire area of operations with analysis of the mobility corridors and avenues of approach extending from the FEBA to the objective. The S2, in conjunction with the TF engineer’s terrain analysis, produces a situational template and an event template. He develops and inputs an ISR plan with specific reconnaissance objectives for subordinate units as the enemy overlay. Subordinate units verify the S2's situational template during reconnaissance and periodically sends enemy overlay updates back to the S2. The staff develops the DST to assist the commander in assessing the situation and making decisions.

(2) ***Formation and Movement Techniques***. From the intelligence estimate the commander determines the formation and movement technique, accounting for the enemy situation and main body disposition. Movement techniques include alternate bounds, successive bounds, and moving guard.

(a) *Alternate Bounds*. The commander uses this technique when he anticipates strong enemy action against the flank. It requires slow movement by the main body.

(b) *Successive Bounds*. The commander uses this technique when he expects enemy action against the flank to be light and movement of the main body to include frequent short halts.

(c) *Moving Guard*. The commander uses this technique when he expects no enemy action on the flank and the main body will move with all possible speed. In the moving guard, an armor heavy company team executes the forward screen mission while traveling as in a movement to contact. The mortar platoon follows the forward screening company team to provide support. The scout platoon, normally with an armor section under OPCON, conducts a flank screen outside the tentative battle position line. The remaining company teams travel in column, along an axis or in sector, behind the forward screen. The commander uses this technique when the greatest enemy danger appears to be from the front.

(3) ***Fire Support***. The fire support officer plans the flank guard operation the same as any offensive operation. Based on the IPB, he targets those enemy avenues of approach that threaten the force. He targets known and suspected enemy positions along the axis of advance or in the TF zone to support the forward screening element. During the operation, the TF executes its fire support plan as it would in movement to contact and defensive operations. On the forward screen, as the TF encounters enemy positions and subsequently destroys or fixes and bypasses them, it uses artillery to suppress the position. Should the enemy attempt to attack from the flank, the TF executes the fire support plan as it would for defensive operations to support the defense or delay.

(4) ***Engineer Support***. The task force engineer considers the factors of METT-TC when conducting reverse planning of the flank guard missions. The task force engineer must identify all mobility as well as countermobility requirements of the task force. Based upon this analysis, engineer forces are typically task-organized throughout the depth of the TF formations to maintain maximum flexibility with priority of effort to mobility then countermobility. Priority of support is typically provided to the lead company team of the task force. Priority of work is to identify, mark, and bypass obstacles. If bypasses are not available then company or TF breaches are conducted. Countermobility obstacle plans are centered upon the rapid emplacement of situational obstacles by organic FASCAM systems (ground Volcano, MOPMS, Hornet). Successful execution of TF situational obstacles occurs through thorough planning, preparation, and rehearsals by the combined arms team to refine effective triggers to emplace the obstacles.

(5) ***Air Defense***. The ADO develops a flexible plan to allow for the protection of the force as it changes posture between moving and stationary. He plans the TF air defense as he would in an offensive operation. Most assets are attached to maneuver elements and the main CP. Route protection or other areas go without support or rely on protection from main body ADA assets. The TF executes the air defense plan as in a movement to contact where a moving force may need to adopt a hasty defense quickly. Whether moving or stationary, air defense assets must be linked to the main body's air defense early warning net and the positioning of assets must protect not only the flank guard but also approaches into the main body.

(6) ***Logistics***. The logistics planner has the same difficulties as in planning a movement to contact. He must plan for responsive and flexible support that may require the immediate resupply of ammunition and evacuation of casualties and equipment upon

contact. The planner identifies lateral supply routes to each battle position during the planning process. On-order control measures, LRPs, UMCPs, and AXPs are essential to the operation. As the TF begins its movement, the TF trains should travel abreast of the flank guard unit (close to the main body) to avoid exposing CSS elements to the enemy. Emergency resupply vehicles carrying ammunition, fuel, and other quickly expendable supplies are ready to respond to sudden requisitions due to enemy contact. Once the TF begins the fight, evacuation of wounded personnel and damaged equipment occurs along lateral supply routes all the way to the main body if that is where the support TF is located. Otherwise, the evacuation is back along the axis of advance.

(7) ***Orientation of Forces***. A unique aspect of the flank guard mission is the orientation of the forces and the direction they may be ordered to screen. While the force maneuvers forward along its assigned axis of advance or zone, phase lines control the movement of the company team elements. There should be a phase line on either side of each company team's battle position. The battle positions themselves are generally larger than in a purely defensive mission, partly due to the large frontage the TF must cover. Once an element detects the enemy and company teams adopt hasty defensive positions, these phase lines become boundaries for controlling the defensive battle. This gives the TF commander the option of designating company team sectors in addition to the battle positions already identified. Similarly, control of the reserve is accomplished through phase lines and checkpoints regardless of the actual direction of the maneuver. As a minimum, the following control measures are included:

- Phase lines (revert to boundaries on contact).
- Battle positions.
- TRPs.
- Axis of advance.
- Axis of advance of main body.
- Objectives (if used).

12-6. AREA SECURITY

Area security refers to a force's mission to secure a specific area. Area security actions could include area reconnaissance and security of designated personnel, equipment, facilities (including airfield and seaports), main supply routes, lines of communication, and critical points. The TF is most often employed as an advance guard for a brigade, as part of a covering force for a division, or as an area security force during a stability or support action.

12-7. COVER

A covering force accomplishes all the tasks of screening and guard forces. Unlike screening or guard forces, a covering force is tactically self-contained and capable of operating independently of the main body to develop the situation early and deceive, disorganize, and destroy enemy forces. Cover may be an offensive or defensive mission. The requirements placed upon the covering force, the command and control structure necessary for the forces involved, and the large areas of operations involved require an adequate level of command for successful accomplishment. The TF performs screen and guard missions. Covering force operations are normally an armored cavalry regiment mission for the corps or a task-organized brigade for the division. A covering force, or

portions of it, often becomes decisively engaged with enemy forces; therefore, the covering force must have substantial combat power to engage the enemy and still accomplish its mission. FA, engineers, air defense, intelligence resources, and CSS should be planned to support the cover mission.

Section III. BATTLE HANDOVER AND PASSAGE OF LINES

Battle handover is a coordinated operation executed to sustain continuity of the combined arms fight and to protect the combat potential of both forces involved. Battle handover is usually associated with the conduct of a passage of lines.

12-8. BATTLE HANDOVER

Battle handover may occur during either offensive or defensive operations. During defensive operations, it is normally planned and coordinated in advance to facilitate execution and usually involves a rearward passage of lines. In the offense, it is situation-dependent and often initiated by a FRAGO. Battle handover normally occurs in the offense when one unit passes through or around another unit. Tactical and digital SOPs containing clear, simple, standardized procedures and control measures enhance a unit's ability to coordinate and synchronize actions quickly without experiencing a corresponding loss in momentum.

a. Battle handover occurs along a line forward of the stationary force. The brigade commander establishes this line in consultation with both stationary and passing TF commanders. The stationary TF commander normally determines the BHL location. This line is forward of the FEBA in the defense or the FLOT in the offense. The BHL is located where elements of the passing TF can be effectively overwatched by direct fires or supported by indirect fires of the forward combat element of the stationary TF until the battle handover is complete.

b. Physical handover normally occurs in the battle handover zone. Events may dictate that a force break contact forward of or behind the BHL, for example, when there is a gap between echelons of the attacking enemy force. Close coordination (physical, digital, or by FM voice) between the TFs involved in the handover allows them to coordinate and execute this process at the small-unit level.

c. The battle handover operation begins on order of the brigade commander of both units involved or when a given set of conditions occurs. Defensive handover is complete when the passing TF is clear and the stationary TF is ready to engage the enemy. These actions may occur at the same time. Offensive handover is complete when the passing TF crosses the BHL. The BHL is normally considered the LD for the attacking TF. Until the handover is complete and acknowledged by the commanders, the TF commander in contact is responsible for the fight.

d. Coordination for battle handover flows from the TF commander out of contact to the TF commander in contact. The coordination for a battle handover overlaps with the coordination for a passage of lines; the coordination for both should be accomplished at the same time. The tactical standing operating procedure (TSOP) should outline these coordination requirements to facilitate rapid accomplishment.

e. Digital systems assist the TF staff in its coordination and synchronization efforts for the operation. Each unit transmits or delivers a complete copy of its OPORD and overlays by either digital (FBCB2 or MCS) or conventional (hardcopy and acetate

overlay) means. Any changes made after initial distribution are updated immediately. The coordination effected between the two commanders includes--

- Establishing digital and FM voice communications.
- Providing updates of both friendly and enemy situations (digital, voice, and graphical).
- Coordinating passage points and routes and ensuring these are displayed on operational overlays (digital and conventional).
- Collocating C2 and exchanging liaison personnel (if required).
- Coordinating fires and fire control measures (direct and indirect) and ensuring these are displayed on operational overlays (digital and conventional).
- Provide updated obstacle overlays including self-destruct date time groups of emplaced FASCAM obstacles.
- Determining the need for and dispatching contact point representatives.
- Establishing and coordinating recognition signals (conventional).
- Exchanging locations of obstacles and related covering fires.
- Exchanging route information to include waypoints.
- Determining CS and CSS requirements.

f. Due to the fluid nature of a battle handover, commanders can use digital systems to speed the planning, coordination, and execution processes. FM voice should be planned; if digital capabilities are hampered, then FM should be utilized in coordinating and executing battle handovers.

12-9. PASSAGE OF LINES

A passage of lines is the coordinated movement of one or more units through another unit. It is normally conducted when at least one METT-TC factor does not permit the bypass of a friendly unit. A passage of lines is a complex operation requiring close supervision and detailed planning, coordination, and synchronization between the TF commanders of the unit conducting the passage and the unit being passed. The primary purpose of a passage of lines is to transfer responsibility for an area from one unit to another. The TF or its subordinate units execute a forward or rearward passage of lines (Figures 12-2 and 12-3). A passage of lines may be conducted to--

- Continue an attack or counterattack.
- Envelop an enemy force.
- Pursue a fleeing enemy.
- Withdraw covering forces or MBA forces.

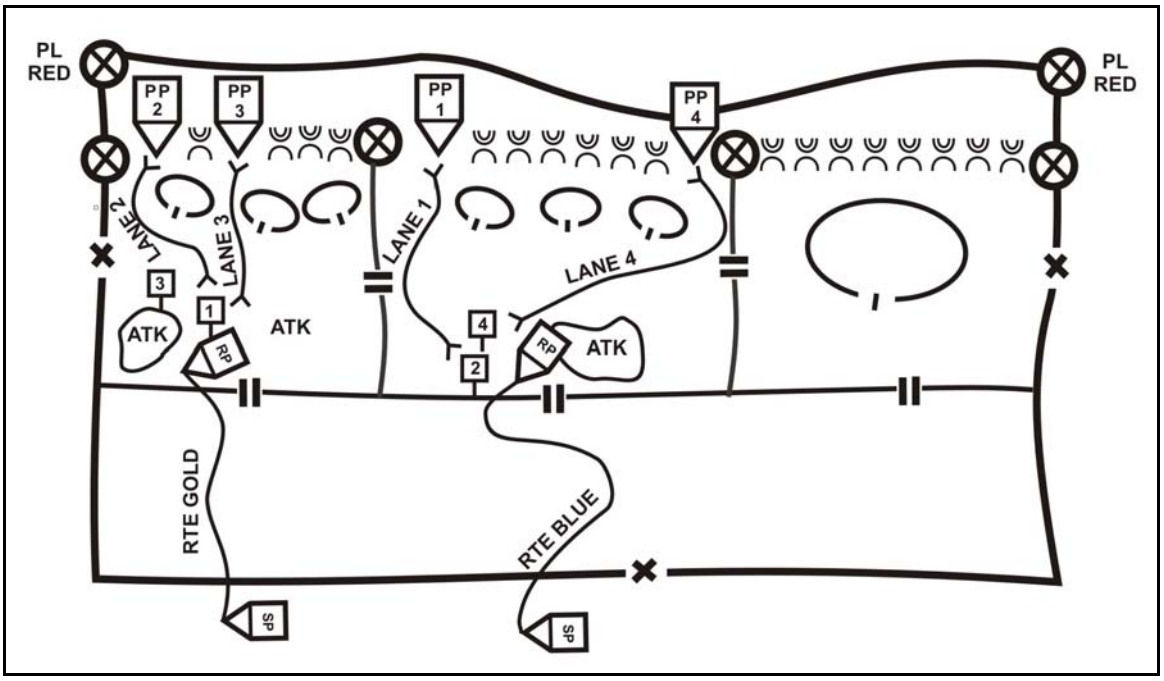

Figure 12-2. Forward passage of lines.

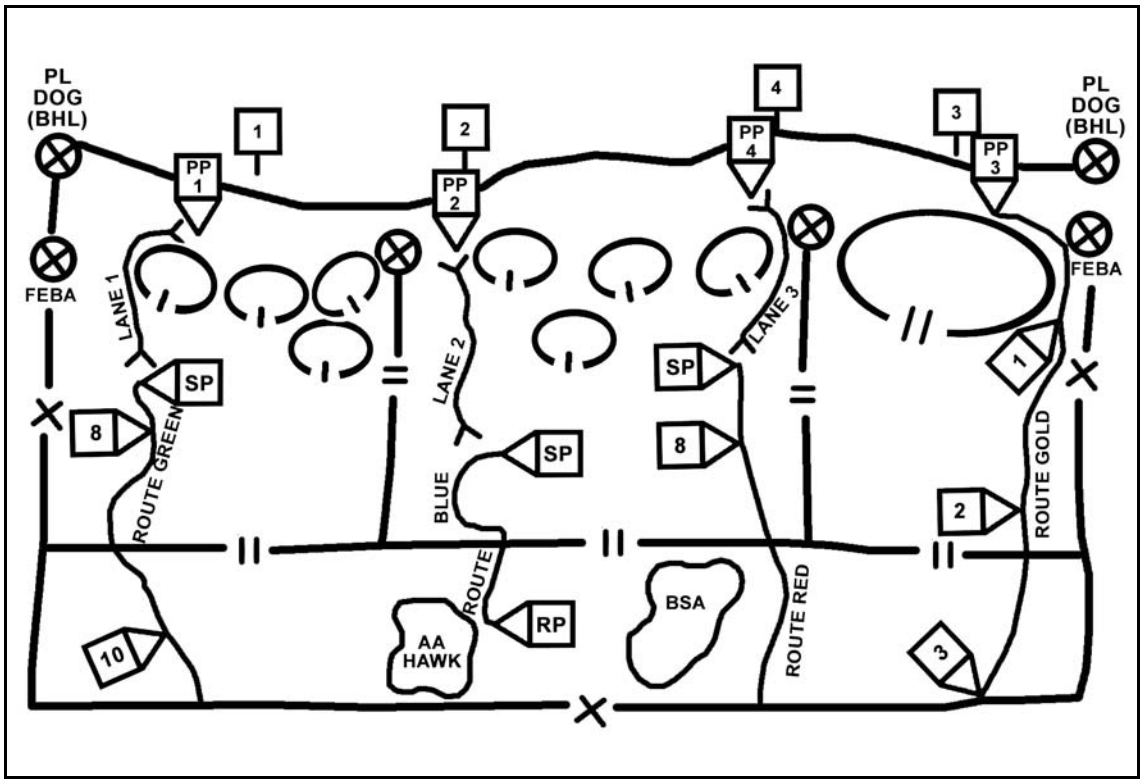

Figure 12-3. Rearward passage of lines.

a. **Planning**. The division or brigade plans and conducts a TF passage of lines. Units involved in a passage of lines must conduct detailed coordination to ensure they maintain positive control to avoid fratricide, speed the passage, and reduce vulnerability to enemy

attack. The TF S2 and staff conduct the IPB, and the S3 prepares his tentative plan based on stationary force restrictions, the IPB, and parameters established by the TF commander. The S3s of the passing TF and stationary TF coordinate routes, checkpoints, linkup points, and passage points via FBCB2, MCS, or conventional means. Planners must evaluate the following basic considerations and integrate them into the planning process.

(1) ***Terrain Management and Control Measures***. Terrain management is critical to successful completion of a passage of lines. Terrain is controlled through the sharing of digital overlays that contain the following:

- Routes (primary and alternate).
- Checkpoint data.
- Friendly and enemy unit locations and status.
- Passage points.
- Fire support control measures.
- Obstacle types and locations.
- CSS locations and descriptions.

(2) ***Liaison***. Stationary and passing TFs exchange information by way of extensive and detailed coordination and liaison before mission execution.

(3) ***Communications***. Communication architectures, digital systems, COMSEC, recognition signals, and communication procedures and requirements must be identified, synchronized, and integrated into the OPLAN. Communication ensures units share data and pertinent combat information and maintain a common relevant picture.

(4) ***Mission Transition***. Plans for the conduct of the passage must facilitate transition to the subsequent missions of both the passing and stationary TFs.

(5) ***Exchange of Zone, Sector, or Area of Operations Control***. Control of the zone, sector, or area of operations passes from one TF to the other at a time and place directed by the higher common commander or as mutually agreed upon by the stationary and passing TF commanders.

(6) ***Routes***. The passing TF moves on multiple routes through the passed TF and avoids the use of assembly areas. It does not halt within the passed TF's forward positions.

(7) ***Employment of Deception and Smoke***. Deception and smoke operations can deceive the enemy as to actual unit locations and passage points.

(8) ***Control Measures***. Establish graphic control measures to ensure positive control of both the stationary and passing units.

(9) ***Location of Stationary TF and Obstacles***. The location and obstacle emplacement of the stationary TF may impact planning and execution of the forward passage of lines.

NOTE: The terrain and number of the passage lanes determine the speed and disposition of the passing TF as it crosses the LD. When conducting a forward passage in preparation for a deliberate attack, it may be important to create passage lanes with sufficient width to allow the passing force to move in a tactical formation appropriate to the operation, such as company team or platoon wedge.

b. **Field Artillery Activities**. The TF FSO reviews the fire support plan of the stationary unit and conducts direct coordination to ensure that a clear understanding exists between the passed and passing units on the established FSCMs. He does so through the transfer of digital fire support overlays between the two FSEs via AFATDS. Procedures to establish fire support battle handover or transfer of control are also identified and approved by the maneuver commander. Terrain and route management for artillery batteries and their support assets are especially important due to potential terrain limitations. All artillery units, to include reinforcing and DS reinforcing units, must be positioned to support the passage if enemy contact is possible during the operation.

c. **Engineer Activities**. A passage of lines may require either the reduction of some obstacles or the opening and closing of lanes through friendly obstacles. The passing TF engineer must coordinate with the stationary unit engineer via digital means or face-to-face meeting. As a minimum, this coordination must address the following:

- Location and status of friendly and enemy tactical obstacles.
- Routes and locations of lanes and bypasses through friendly and enemy obstacles.
- Transfer of obstacle and passage lane responsibilities.
- Description of lane marking materials.
- Description of far and near recognition markers.

d. **Air Defense Artillery Activities**. During the conduct of a passage of lines, units participating in the operation present a lucrative target for air attack. The passing commander coordinates ADA protection with the stationary force commander for ADA coverage during the passage of lines. This method allows the passing force's supporting air defense assets to conduct a move at the same time. If the passing force requires static air defense, then it must coordinate the terrain with the stationary TF's S3. To ensure the passing force's ADA assets are incorporated into the stationary force's air defense early warning net, the stationary force uses FAADC3I for ADA coordination. If the stationary TF is not equipped with FAADC3I or Sentinel radars, commanders should consider positioning these assets in the stationary TF area to provide more effective early warning and air defense.

e. **Combat Service Support Activities**. The CSS plan is integral to a successful passage of lines. CSS assets are positioned to support the passage. UMCPs and emergency refueling points are positioned where they can best keep lanes open and vehicles moving. Figure 12-4, page 12-14, shows the CSS plan for a rearward passage of lines.

f. **Health Services Support Activities.** Conducting a passage of lines presents a challenge for the HSS planner. There will be a number of MEDEVAC units using the same air and road networks. Coordination and synchronization are essential if confusion and over-evacuation are to be avoided. The medical elements of the force manning the line should provide area support to the force passing through; this allows continued mobility for the moving force. Examples of information that should be coordinated include--

- Radio frequencies and call signs.
- Operation plans and TSOPs.
- Location of MTFs.

- Location of CCPs and AXPs.
- Main supply route, forward arming and refueling points, and A2C2 data.

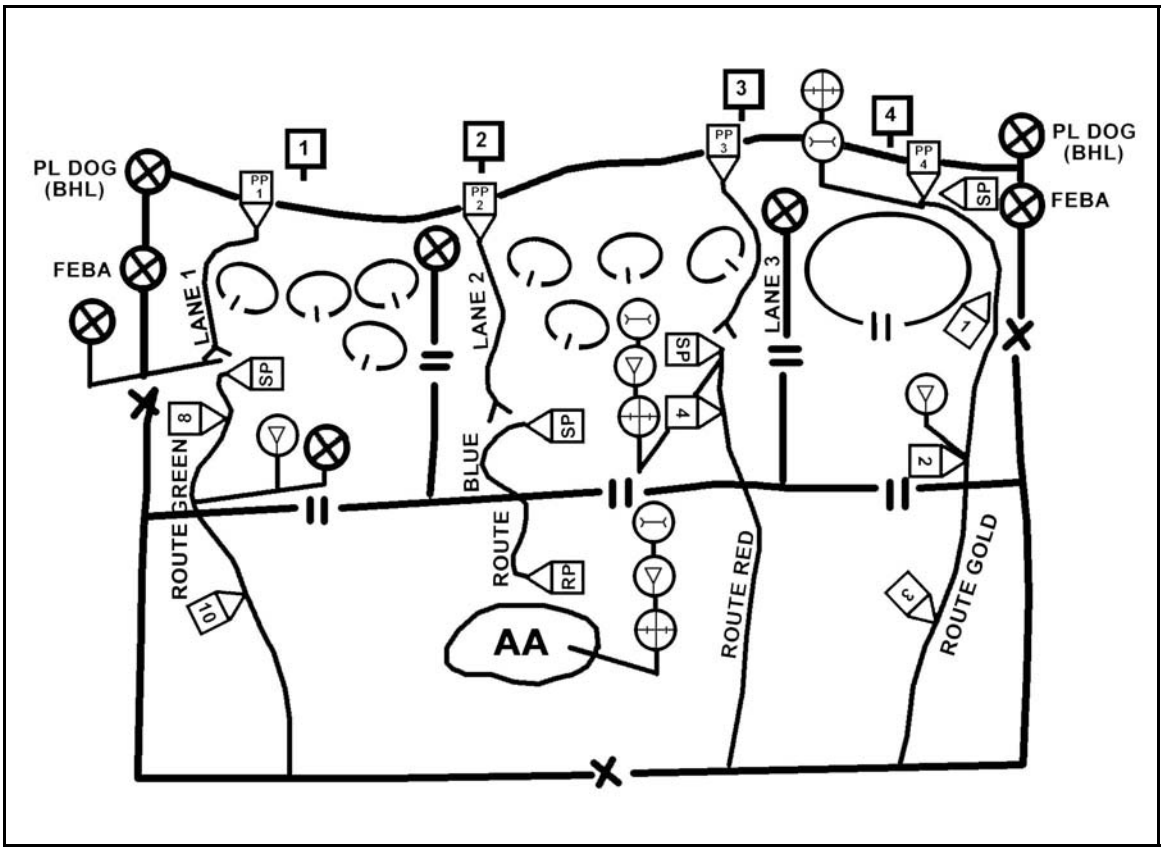

Figure 12-4. Combat service support plan for rearward passage of lines.

12-10. FORWARD PASSAGE OF LINES

In a forward passage of lines conducted as part of an attack, both the stationary and passing TF commanders must be aware of the passing TF's objective. This awareness is especially important if the stationary TF must provide supporting fires. The stationary TF and forward passing unit, through an exchange of combat information, share data needed to effect a passage of lines in a timely and safe manner.

a. On receipt of an order, the passing TF commander begins preparing his passage of lines plan by conducting a reconnaissance while concurrently updating the information received from the stationary TF. For example, the passing TF receives an FBCB2 operations overlay that delineates routes to the contact points as well as the location of the actual linkup site. The TF commander and staff of the passing unit meet representatives from the stationary TF at designated contact points to conduct coordination. During the physical reconnaissance, the S3 from the passing TF updates the initial operations overlay, incorporating information received from the stationary TF by adding pertinent control measures. Upon completion, the S3 forwards this overlay to the main CP. Based on this information, the staff completes development of the plan. Once approved by the commander, additional control measures are added to the operations overlay as necessary to complete the plan.

b. The main CP forwards the validated operations overlay update from the stationary and passing TFs, brigade, and subordinate units to the liaison teams. This technique allows the S3 and TF commander to develop their scheme of maneuver for the passage of lines on a digital overlay concurrent with reconnaissance. At the conclusion of the reconnaissance and subsequent coordination with the stationary TF, the revised TF plan is distributed digitally by way of FBCB2 to subordinate units and higher headquarters.

12-11. REARWARD PASSAGE OF LINES

Typically, a rearward passage of lines occurs within a defensive framework in which elements of the covering force operate forward of the MBA. MBA forces are the stationary unit in a rearward passage of lines. The covering force withdraws through them, handing off control of the fight at the battle handover line.

a. To facilitate a rearward passage of lines, the stationary force commander designates--

- The battle handover line.
- Contact points forward of the BHL.
- Passage points along the FEBA.
- Lanes to the rear of the MBA.

b. Once he prepares the overlay, the stationary commander transmits it and any amplifying information to the passing force commander by way of FBCB2 or MCS.

c. During a passage of lines, unit density in a relatively small maneuver space may cause problems in the ability of the commanders to maintain the common operational picture in relation to both the passed and passing units. The stationary and passing commanders should determine the best method of exercising C2 to avoid slowing the tempo of the operation and to reduce fratricide potential.

12-12. REHEARSAL

During the rehearsal, the TF commander ensures that each organization knows when and where to move as well as how to execute the required coordination. Digital communications checks ensure connectivity and interoperability. Other rehearsal items include--

- Fire support observation plan, target execution, communication linkages, and mutual support operations. Confirm fire support control measures. Review unit routes and positioning.
- Locations and descriptions of obstacles, lanes, bypasses, and markings. Confirm locations of any engineer stockpiles.
- Air defense weapons locations, early warning communications, air threat, and weapons control status.
- Passage points, routes, and recognition procedures. Confirm these and review numbers of vehicles by type expected at each passage point. Rehearse route management, contact points, and use of guides.
- Locations for and movement of CSS units. Rehearse these, along with mutual support arrangements and any transfer of supplies.
- Locations of aid stations, ambulance exchange points, and casualty evacuation procedures (rehearse these).

Section IV. LINKUP OPERATIONS

Linkup operations, which join two or more friendly forces, are conducted to--

- Complete the encirclement of an enemy force.
- Assist breakout of an encircled friendly force.
- Join an attacking force with a force operating in the enemy's rear area.
- Make contact with other forces on a noncontiguous battlefield.

Before commencing a linkup operation, the headquarters elements of the stationary force and linkup force must share data including COMSEC procedures and digital graphic overlays consisting of--

- Primary and alternate linkup points.
- Checkpoints and waypoints information.
- Unit disposition and activity (friendly and enemy).
- Locations and types of obstacles.
- Fire control measures including RFLs.

12-13. CONTROL DURING LINKUP OPERATIONS

The stationary and linkup force must maintain positive control during linkup operations to prevent inadvertent fratricidal engagements. They use FBCB2, ABCS, and FM voice systems as required to share combat information and to identify friend from foe positively. It is imperative that both the linkup and stationary units conduct precombat communications checks before the operation begins to ensure that connectivity and interoperability between digital systems is established and maintained.

a. The S6s of the two linkup units are integral to successful linkup operations when both units are digitally equipped. These officers must ensure that units address both primary and alternate forms of communication during planning and that they synchronize both manual and digital systems used in support of the linkup operation and integrate these into the linkup plan.

b. Special requirements related to digital operations must be identified. The following are examples:

- Exchange of unit IP address databases.
- SINCGARS and EPLRS hop set data.
- COMSEC requirements.
- Positioning of EPLRS position server links.
- Modifications to digital communications structure.

12-14. FORMS OF LINKUP

Linkup operations take one of two forms: linkup of a moving force and a stationary force or linkup of two moving forces.

a. **Linkup of a Moving Force with a Stationary Force**. To ensure the forces join without engaging one another, linkup points are selected at locations where the axis of advance of the linkup force intersects the security elements of the stationary force (Figure 12-5). These points must be readily recognizable to both forces and should be posted on both digital overlays and conventional maps in case of digital communication loss. Alternate points are chosen so the units are prepared in case enemy activities cause linkup at places other than those planned. The number of linkup points selected depends on the terrain and number of routes used by the linkup force.

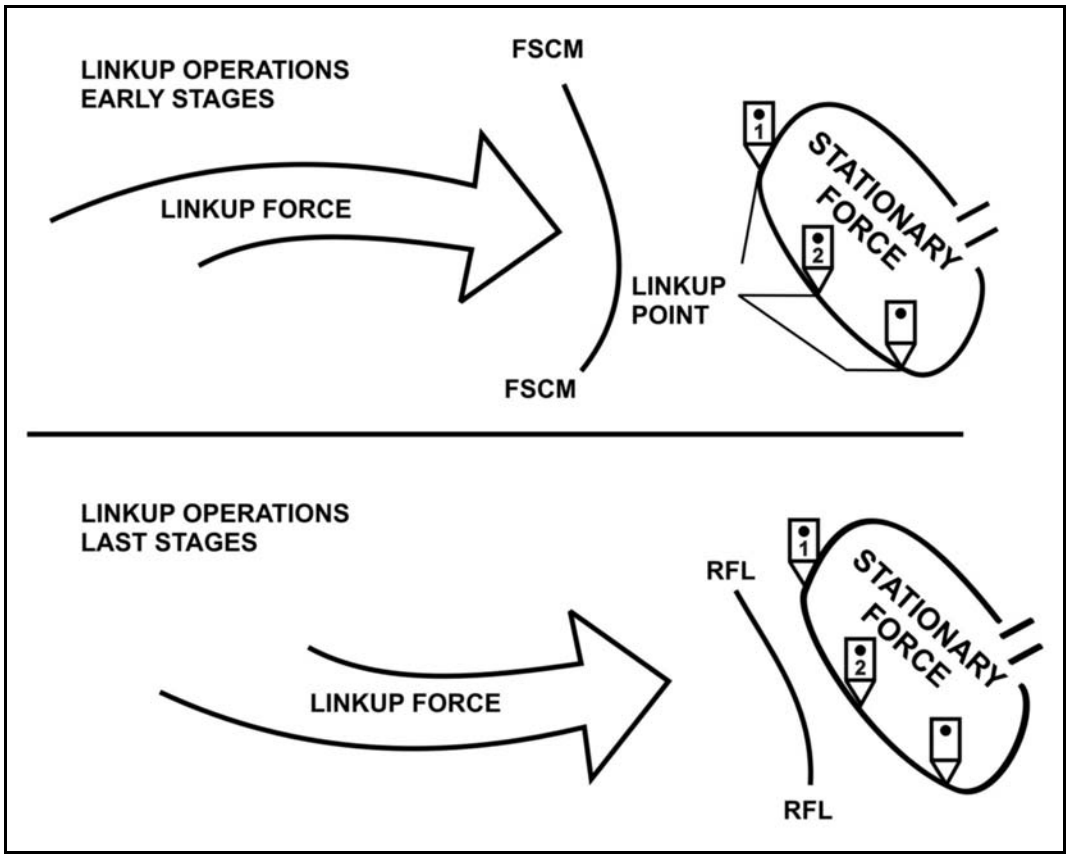

Figure 12-5. Linkup of a moving force with a stationary force.

(1) The communications section is critical to linkup operations. Digital communications are used to transmit and share combat information data. However, use of digital means depends on METT-TC factors and the ability to maintain digital linkages between the moving unit and stationary unit.

(2) To facilitate a rapid passage of lines and to avoid inadvertent engagement of friendly forces, personnel in the linkup force must be thoroughly familiar with recognition signals and plans. As required, stationary forces assist in the linkup by opening lanes in minefields, breaching or removing selected obstacles, furnishing guides, providing routes with checkpoints, and designating assembly areas.

(3) When linking up with an encircled force, the TF carries as much materiel as possible during the linkup operation. This materiel includes Classes I, III, V, and VIII. If an enemy force has encircled the stationary force, the TF carries additional supplies and materiel requested through to the brigade S4 before the linkup takes place. The TF S4 ensures that each company team has received the FBCB2 CSS overlay depicting MSRs, traffic control points, AXPs, and UMCPs.

b. **Linkup of Two Moving Units**. Linkup between two moving units is one of the most difficult operations (Figure 12-6, page 12-18). It is normally conducted to complete the encirclement of an enemy force. Primary and alternate linkup points for two moving forces are established on boundaries where the two forces are expected to converge. As linking units move closer, positive control is coordinated to ensure they avoid firing on one another and to ensure the enemy does not escape between the two forces. Again,

using digital systems facilitates planning, synchronization, execution, and fratricide avoidance.

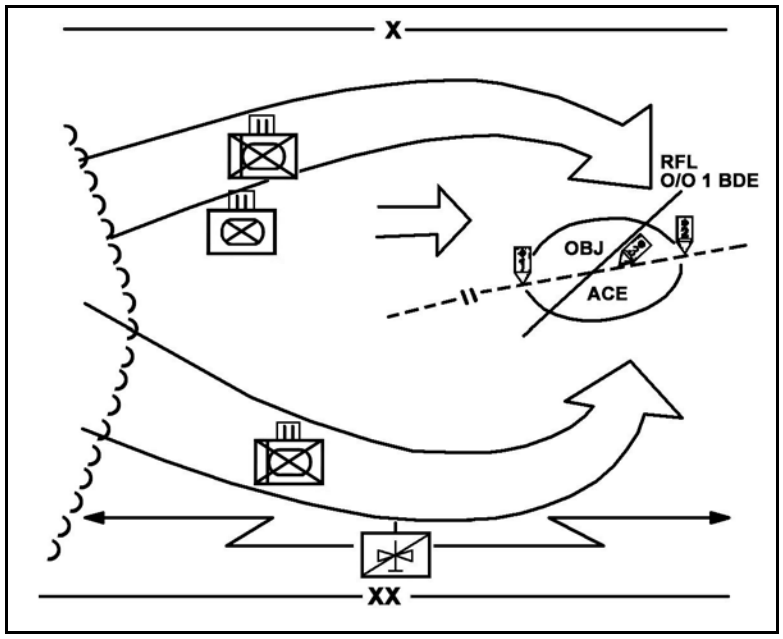

Figure 12-6. Linkup of two moving units.

c. **Actions Following Linkup**. When the linkup is complete, the linkup force may join the stationary force, pass through the stationary force, go around the stationary force, or continue the attack.

(1) If the linkup force is to continue operations with the stationary force, a single commander for the overall force is designated. Objectives for the linkup provide for dispersion in relation to the stationary force. The linkup force may immediately pass through the perimeter of the stationary force, be assigned objectives within the perimeter, or be assigned objectives outside the perimeter, depending on the mission.

(2) When the brigade directs a linkup operation, it normally establishes a restrictive fire line for both TFs to ensure positive control and reduce the risk of fratricide. It transmits these RFLs to both units by way of a digital overlay, and they are subsequently adjusted and overlays updated as one force moves toward the other. This process continues until a single RFL is established between the forces. Usually, this is the point on the ground where the two forces plan to establish contact.

d. **Planning**. The linkup is a complex operation requiring detailed planning and coordination. Plans for a linkup are coordinated as far in advance as possible. The two forces carefully define and coordinate their schemes of maneuver with certain attention given to graphic control measures, communications, and the subsequent mission to be performed by each force after linkup operations are completed. Alternate linkup points are planned and lend flexibility to the overall operation.

(1) The two units establish liaison during planning and continue it throughout the operation. Liaison parties must have the capability to communicate digitally with their parent unit through the TI. As the distance closes between the forces, the requirement to

track movement through FBCB2 and maintain close liaison increases. Use of Army aircraft can improve and expedite this process.

(2) Linkup operations frequently require a passage of lines. Once through friendly lines, the TF moves out as in an exploitation to effect the linkup. Speed, aggression, and boldness characterize this action. If possible, the linkup force avoids enemy interference with its mission and concentrates its efforts on completing the linkup. If enemy forces threaten the successful accomplishment of the mission, they are either destroyed or bypassed and reported.

(3) The headquarters directing the linkup operation must establish command relationships and responsibilities for the forces involved. Both the linkup force and the force with which linkup is to be made can remain under control of the directing headquarters. Operational plans must prescribe the primary and alternate day and night identification and recognition procedures, vehicle systems, and manmade materials used to identify friend from enemy.

(4) The communication plan includes all essential frequencies, secure variables, IP addresses, and communication needlines to maintain communication between the two forces.

(5) Logistical support requirements may be greater during linkup operations than during other offensive actions. Additional considerations for planning logistical support in linkup operations include--

- Resupply of stationary unit.
- Fuel requirements.
- Duration the objective is to be held (METT-TC).
- Operations after the linkup is completed (for example, attack, withdraw, or defend).
- Transportation requirements for special purpose forces (for example, air assault and special operation forces).
- LOC security requirements.

(6) Supply requirements for a linkup operation may exceed the transportation capability of the TF. The TF may have to request additional vehicles from higher headquarters, Army aviation support, or both.

(7) In linkup operations involving airborne and air assault units, the units assaulting the objective area have priority for supply by air. Supplies for the ground linkup forces normally move by land transportation. However, when the linkup and an airborne or air assault force plan to defend the objective area jointly, supplies for the linkup force may be flown into the objective area and stockpiled.

(8) Evacuation of equipment, wounded in action (WIAs), and EPWs may create major problems for the linkup force. If supply routes are open, normal evacuation procedures apply. When ground routes are not secure, helicopters are used for the evacuation of casualties and prisoners. Damaged equipment may be moved forward with the linkup forces until it can be evacuated at the first suitable opportunity.

e. **Preparation**. Due to the time-sensitive nature of linkup operations, the commander issues his order digitally. If time is available, he conducts a rehearsal at higher headquarters. If time is not available, the commander walks the linkup commander through the operation. He stresses the linkup and coordination required to reduce the potential for fratricidal engagements between the linkup forces. In addition, he ensures

that each TF commander is prepared to respond to an enemy meeting engagement or attack before the linkup. The TF FSO is an integral member of the team that plans linkup operations. He is responsible for the coordination, synchronization, dissemination, and monitoring of the FS plan and FSCMs. He is also accountable for the conditions and methods for changing the FS plan or control measures.

f. **Execution**. Depending on the enemy situation and METT-TC, the initial conduct of the linkup operation may be identical to an exploitation or attack. During the operation, the brigade commander monitors the progress and execution through data passed using FBCB2 and other ABCSs to ensure positive control measures established are followed or adjusted as required. Adjustments made to the OPLAN are coordinated and synchronized by way of digital systems. If a FRAGO is passed by FM voice, a digital follow-up is entered and transmitted through FBCB2 to ensure all units are aware of the change. The following discusses the digital procedures that may be used when friendly forces are conducting a linkup.

(1) As the linkup forces begin their maneuver, they establish digital and FM voice communications and maintain them throughout the operation. As each force maneuvers, progress is tracked by way of FBCB2, and adjustments to the linkup plan are made as METT-TC dictates. For example, if two forces are involved in the operations and one is unable to travel at a speed commensurate with the plan, the linkup location may require adjustment.

(2) In nondigitized units, as the linkup forces near each other, the speed (momentum) of the operation may be slowed to maintain positive control and to prevent fratricide. In this case, commanders must be vigilant and ensure enemy forces do not slip between the two closing forces. Momentum of a linkup operation should not slow for the digitized TF since the maneuver and movement of all forces can be tracked by way of FBCB2 and other ABCSs.

(3) The TF FSE changes or activates the FS control measures established for the operations based on the progress of the forces and the enemy situation. All changes are provided to the FSEs of the maneuver units involved in the linkup through FBCB2 or AFATDS. As the maneuver units draw closer to one another, CFLs are canceled and an restrictive fire line (RFL) is placed into effect to prevent fratricide between the converging forces. Once the linkup has occurred, FS for the brigade is organized as per the higher headquarters plan for future operations.

(4) The TF commander positions himself to observe the progress of the operation and maintains both digital and FM voice communications with the S3. The commander of a digitized TF is more flexible in positioning since he can maintain a composite picture of the progress of both maneuver units digitally and adjust the linkup plan as required. The TF S3 is positioned based on the operational concerns expressed by the TF commander. For example, if a certain flank is of concern to the commander during the operation or a supporting attack is required to penetrate the enemy's lines, then the TF S3 locates where he can best observe the TF's secondary action.

Section V. RIVER CROSSING OPERATIONS

There are three types of river crossing operations: hasty, deliberate, and retrograde. TFs do not make deliberate or retrograde crossings independently; these are centralized operations where the controlling echelon is a division or brigade. (For a detailed discussion of these operations, see FM 90-13.)

12-15. GENERAL CONSIDERATIONS

TFs routinely make hasty crossings and reorganize in order to maintain the momentum of operations. The information provided through ABCS reduces uncertainty about the enemy and friendly situation, enabling the TF to move rapidly to undefended or lightly defended crossing sites where it uses all available means to push its company teams across the river and onto objectives on the far side.

a. A hasty river crossing is a continuation of an attack across the river, with no intentional pause at the water to prepare, so that there is no loss of momentum. This technique is possible when enemy resistance is weak and the river is not a severe obstacle.

b. TFs cross in their respective zones at multiple points and as quickly as possible. The TF may require the use of organic, existing, or expedient crossing means. Additional support from the division or corps may be necessary if bridging requirements exceed the capability of engineers augmenting the TF. Bridge companies are controlled at corps level. Their support is available only when headquarters has taken purposeful action to position the assets at the right time and place to assist a TF's hasty crossing. The TF must coordinate for support through the brigade early in the planning process.

c. Small gaps, streams, and small rivers that prohibit vehicles from advancing are encountered more frequently than large gaps and rivers that require extensive bridging. When terrain or enemy conditions dictate, each TF should request organic mobile crossing assets that enable it to install bridges quickly, cross small gaps, and recover the bridges for future crossings. Follow-on bridges, such as the medium-girder bridge (MGB), may need to be positioned at these gaps before assault bridges are removed so that following forces and support units can maintain the pace of the TF. The two types of hasty crossings are dry-gap and wet-gap crossings.

(1) ***Hasty Dry-Gap Crossing***. Antitank ditches and craters are normally what TFs encounter as a dry-gap obstacle. Dry riverbeds may also present a crossing problem to vehicles. TFs can use the M9 ACE to push down the sides of ditches or to fill in craters. Substantial fill material placed in the dry gaps allows the passage of combat vehicles. Follow-on forces can improve and maintain the crossing site for wheeled-traffic use. The AVLB or Wolverine, if available, is suited for spanning streambeds, AT ditches, craters, canals, partially blown bridges, and similar obstacles without significant loss of momentum to the TF. The AVLB and Wolverine both launch their bridges in 2 to 5 minutes and retrieve their bridges in 10 minutes. An AVLB crosses gaps of up to 17 meters in length (without prepared abutments) with a military load classification of 70. A Wolverine has increased capability; it crosses gaps up to 24 meters with a military load classification of 70. Bridges should be left in place across the gaps only as long as it takes to cross the TF, then replaced with other fixed bridging, if necessary.

(2) ***Hasty Wet-Gap Crossing***. Bank conditions, the depth and width of the wet gap, and the current's velocity determine whether the TF can cross its vehicles by fording,

swimming, or if other bridging assets are required. Identifying wet gaps early and deploying the required resources allow hasty crossings of known or anticipated gaps to occur. The following are general planning factors for hasty wet-gap crossings. In depth crossing site considerations and planning factors for commanders and staffs are found in FM 90-13, Chapter 7.

(a) Because vehicles drain rapidly when exiting, initially firm banks tend to deteriorate rapidly from multiple uses of the same exit point. The existence of mud or surface irregularities further degrades the percent of the slope that vehicles can overcome. When selecting a fording site in a wet-gap crossing, the depth of the water is the most significant factor. The depth of the water in one crossing area may change due to bottom surface mud or irregularities (boulders and potholes).

(b) If possible, the TF crosses the water obstacle at multiple points across a broad front by swimming or fording mounted or dismounted forces. It makes the crossing as soon as its elements reach the obstacle. As the bulk of the TF crosses the water, minimum forces remain to secure the crossing sites.

(c) The TF may use expedient crossing means if they are readily available and can be transported to the crossing site. Scouts and other reconnaissance elements should note material or existing features that could be used as expedient crossing devices. These include culvert pipe, lumber or cut timber, or war-damaged equipment. The pipe links system, which consists of bundles of 8-inch, high-density plastic pipes chained together, can fill gaps up to 9 meters deep and support up to 70 tons.

(d) A well practiced SOP reduces the necessary planning and preparation time. A concise order clearly articulating the commander's intent allows exploitation wherever subordinate units successfully force a crossing. When possible, advance elements seize existing crossing means intact and ahead of the main body.

(e) When facing negligible or light enemy resistance on both banks, the force does not have to clear all enemy forces from the river to conduct a hasty crossing. It capitalizes on the speed of the crossing and the limited ability of the enemy to oppose the crossing effectively.

12-16. ASSAULT OF THE CROSSING SITE

A TF assault across a river normally begins with an attack to secure terrain on the exit bank. This may involve an air assault by infantry elements, an assault crossing using pneumatic boats, or an infiltration by swimming or rope bridges. Regardless of crossing technique, the dismounted elements constitute the TF's assault force.

a. **Air Assault Crossing**. An air assault is the fastest and most preferred crossing method. The following considerations apply when planning an air assault as part of the TF river crossing. (Refer to Appendix J and FM 90-4 for detailed discussion of air assault operations.) Helicopters--

- Require indirect approaches to avoid detection.
- Provide the element of surprise.
- Give greater flexibility to emplaced personnel and equipment.
- Provide the rapid insertion of forces into the area where the enemy is located, if an LZ is available.
- Are greatly affected by weather conditions.

- Must be a high AD priority at the river, requiring suppression of enemy AD efforts.
- Require the separation of troops from their vehicles and equipment.
- Are vulnerable to armored counterattacks and require a quick ground linkup.

b. **Rubber-Boat Crossing**. The following considerations apply when using rubber boats in an assault crossing. Rubber boats--

- Offer great opportunity for surprise in a silent-paddle crossing.
- Are a relatively fast means of crossing, especially when using outboard motors.
- Maneuver well in the water.
- Require limited, if any, entry-bank preparation and no preparation on the exit bank.
- Require the separation of troops from their vehicles and heavy equipment.
- Have limited carrying capacity, particularly AT weapons.
- Provide limited protection, mobility, firepower, and communications on the exit bank.

c. **Organization for Boat Crossing**. The specific organization used depends on METT-TC factors, particularly the size of the bridgehead, the distance to exit-bank objectives, and the nature of the enemy's defense. Regardless of these factors, the TF organizes into support and assault forces and is assisted in the assault by other units in support by fire positions.

(1) ***Support Force***. The support force is normally the BFV and tanks of the company team whose infantry is conducting the assault crossing. This force establishes a support by fire position along the friendly bank before the assault. It uses night-vision and thermal sights to locate enemy positions. It also develops a fire plan to engage these positions and to provide suppressive fires on all suspected positions. When directed to engage, the support force destroys all known and suspected positions. The assault force commander, usually the TF commander, directs the support force commander, usually the XO, to lift or shift suppressive fires as necessary. Supporting artillery and the mortar platoon provide indirect fire support and effects.

(2) ***Assault Force***. The first assault wave moves the force across covertly. This force attempts to provide sufficient security on the far shore so that the second and later assault waves can cross if surprise is lost. Each assault company team receives engineers that accompany the assault force to its objective, helping it fight through obstacles and prepared defenses. The engineers help the assault force establish hasty defenses after it has seized its objectives. The first assault wave carries--

- Rifle platoons.
- Attached assault engineers.
- Forward observers.
- The command group.

(a) *First Assault Wave*. The organization of the first wave permits rapid deployment of the force into a tactical formation on the far shore. Individual boatloads retain unit integrity at the lowest level. The two basic boatload configurations are the rifle squad boat and the rifle platoon headquarters boat.

- The first wave of the assault may consist of three company team flotillas crossing on line. TFs do not have a prescribed crossing formation. Each company team crosses in its own AO and attacks its own objectives.
- Platoon boat groups form into company team flotillas. The company team commander commands the guide boat in the center platoon. The company team command group disperses between boats, filling in vacant boat positions.

(b) *Second Wave*. The second wave carries company team aid stations and may include the TF command group. If sufficient AD systems are in place to cover the crossing area, the brigade may release some of the augmenting AD teams to cross in the second wave as MANPADS teams. The second wave also transports additional material and ammunition that is not required for the initial assault but is necessary to establish a defense. This may include antiarmor weapons, mortars, ammunition, laser designators, mines, or pioneer tools.

(c) *Subsequent Waves*. The immediate movement of some AT weapons across to support the assault element is essential if an armor threat exists. As vehicles carry all heavy AT weapons, engineers concentrate on moving antiarmor systems or vehicles carrying heavy weapons across immediately after the second wave. Engineers begin bank preparations on both the near and far shore, using hand tools and heavy equipment where possible. They may ford an M9 ACE or deep ford a bulldozer to get a winch capability to the far shore. If necessary, Bradley vehicles can ford with towing assistance. If absolutely necessary, rafting can be used, but this is a high-risk operation and is vulnerable to enemy indirect and direct fire systems. (For a detailed description of assault crossing techniques and procedures, see FM 90-13.)

Section VI. COMBINED ARMS BREACHING OPERATIONS

Obstacle breaching is the employment of a combination of tactics and techniques to project combat power to the far side of an obstacle. Success will depend on the TF effectively applying the breaching fundamentals of SOSRA. Breaching is a synchronized combined arms operation under the control of a maneuver commander. Breaching operations begin when friendly forces detect an obstacle and initiate breaching fundamentals and end when friendly forces destroy the enemy on the far side of the obstacle or when battle handover has occurred between a unit conducting the breaching operation and follow-on forces. Effective breaching operations allow friendly maneuver in the face of obstacles.

12-17. BREACH TENETS

Successful breaching operations are characterized by applying breach tenets. The tenets are applied whenever an obstacle is encountered, whether friendly forces are conducting an attack or route clearance operations. The breach tenets are--

- Intelligence.
- Breaching fundamentals.
- Breaching organization.
- Mass.
- Synchronization.

a. **Intelligence.** Critical to a commander’s success is the ability to identify how the enemy applies obstacles to the terrain. The commander and staff conduct intelligence

preparation of battlefield to develop initial SITEMPs and priority intelligence requirements. Intelligence gathered by reconnaissance forces is essential to developing a finalized SITEMP and final point of breach locations. Unverified enemy SITEMPs may cause friendly forces to deploy to reduce obstacles early, waste mission time attempting to locate non-existent obstacles, develop COAs using ineffective obstacle reduction methods, or become surprised by an obstacle. Augmentation of reconnaissance forces by engineer squads or sections may be utilized as part of the overall ISR plan. Examples of obstacle intelligence (OBSTINTEL) requirements are--

- Location of existing or reinforcing obstacles.
- Orientation and depth of obstacles.
- Soil conditions (determines ability to use mineplows).
- Lanes or bypass locations.
- Composition of minefields (buried or surface laid antitank and antipersonnel mines.
- Types of mines and fuzes (determines effectiveness of mechanical or explosive reduction techniques).
- Composition of complex obstacles.
- Location of direct and indirect fire systems overwatching obstacle.

b. **Breaching Fundamentals.** The breach fundamentals--suppress, obscure, secure, reduce, and assault --always apply; however, they must adapt to the varying factors of METT-TC.

- Suppression protects friendly forces reducing and maneuvering through an obstacle. Successful suppression typically initiates the rest of the actions at the obstacle.
- Obscuration degrades enemy observation and target acquisition of the enemy forces while concealing friendly force reduction and assault activities. Obscuration planning factors include wind direction, type of obscuration systems available (mechanical smoke, artillery delivered, mortar delivered, smoke pots), and the capabilities and limitations of these systems. Typically the most effective placement of obscuration is between the obstacle and the overwatching enemy forces.
- Friendly forces secure the point of breach to prevent enemy forces from interfering with the reduction of lanes and passage of assault forces. The breach force must be resourced with sufficient combat power to secure the point of breach.
- Reduction is the creation of lanes through an obstacle. Reduction can not be accomplished until effective suppression and obscuration is achieved and the point of breach secured. The breach force will reduce, proof, and mark the required number of lanes to pass the assault force through the obstacle. Follow-on forces will continue to improve and reduce the obstacle when required.
- The assault force’s primary mission is to seize terrain on the far side of the obstacle in order to prevent the enemy from placing or observing direct and indirect fires on the reduction area.

c. **Breaching Organization.** Commanders develop COAs which organize friendly forces into a support force, a breach force, and an assault force to quickly and effectively execute the breach fundamentals (Table 12-1).

Breaching Organization	Breaching Fundamentals	Responsibilities
Support force	Suppress Obscure	Suppress enemy direct fire systems covering the reduction area. Control obscuring smoke. Prevent enemy forces from repositioning or counterattacking to place direct fires on the breach force.
Breach force	Suppress (provides additional suppression) Obscure (provides additional obscuration in the reduction area) Secure (provides local security) Reduce	Create and mark the necessary lanes in an obstacle. Secure the near side and far side of an obstacle. Defeat forces that can place immediate direct fires on the reduction area. Report the lane status and location.
Assault force	Assault Suppress (if necessary)	Destroy any enemy forces capable of placing direct fires on the reduction area from the far side of an obstacle. Assist the support force with suppression if the enemy is not effectively suppressed. Be prepared to breach follow-on and protective obstacles after passing through the reduction area.

Table 12-1. Breaching organization.

- Support force responsibilities are to isolate the reduction area with direct and indirect fires, suppress enemy's direct and indirect fire at the point of breach, and control obscuration.
- The breach force must have sufficient combat power to secure the point of breach as well as sufficient reduction assets to reduce the required number of lanes through the obstacle. CFZs should be activated at the point of breach prior to commitment of the breach force to protect it from enemy indirect fires.
- The assault force's primary mission is the destruction of enemy forces on the far side of the obstacle to prevent the enemy from placing direct fires on the breach lanes.

d. **Mass.** The support force achieves mass by fixing and isolating enemy forces on the far side of the obstacle. The breach force achieves mass by planning 50% redundancy of breach assets, creating one vehicle lane per each assaulting company-sized element, and creating two lanes separated by 800 to 1000 meters (terrain dependent) to pass the task force. The assault force achieves mass by projecting a 3:1 combat power ratio at the point of penetration (typically one isolated enemy platoon in an enemy company-sized defense for a task force breach).

e. **Synchronization.** Synchronization of all combined arms elements to successfully achieve the breach fundamentals is essential. Commanders achieve synchronization through detailed reverse planning of offensive operations (from the objective back to the assembly area), by issuing clear subordinate unit instructions, planning effective C2, and ensuring their forces are well rehearsed. Detailed reverse planning is initiated during IPB and development of enemy SITEMP. The scheme of maneuver, engineer operations, fires, air defense, and actions at the obstacle are all based upon this common SITEMP. For example--

- Actions on the objective determine the size and composition of the assault force based upon desired 3:1 combat power ratio.
- The size of the assault force determines the number and location of breach lanes required.
- Lane requirements and disposition and composition of the obstacles determine the mobility asset requirement of the breach force.
- The enemy's ability to interfere with the breach force at the point of breach determines size and composition of the security element within the breach force.
- The enemy's ability to mass fires on the point of breach determines the amount of suppression required as well as the size and composition of the breach force.

TF reverse planning begins with actions on the objective and continues to its deployment from tactical assembly areas in order to identify all mobility requirements. Reverse planning should include enemy special munition capabilities and effects (Figure 12-7, page 12-28).

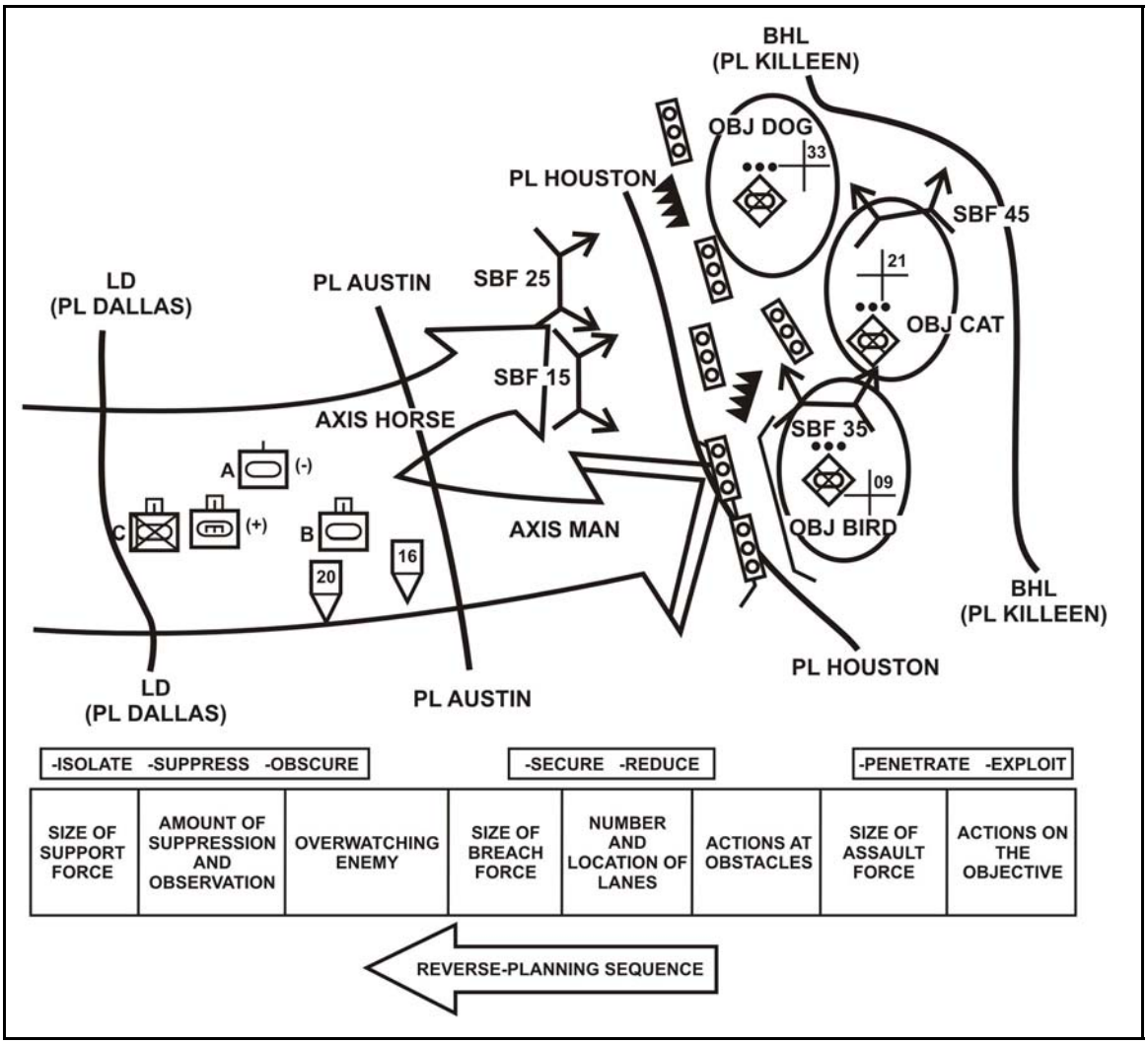

Figure 12-7. Reverse planning sequence.

12-18. COMBINED ARMS BREACH DURING DELIBERATE OPERATIONS The following paragraphs discuss the detailed planning, preparation, and execution necessary in conducting a combined arms breach during deliberate operations.

a. **Planning**. Planning a breaching operation begins with the command and engineer estimates. The TF S2 templates the enemy's order of battle, and the engineer assesses its engineer capabilities. Both the engineer and S2 doctrinally template the enemy's tactical and protective obstacles. The staff develops COAs using the templates, and the engineer develops his scheme of engineer operations for each COA. After selecting a COA, the commander must carefully allocate available assets to the breach, assault, and support forces to ensure that they can accomplish their assigned tasks.

(1) Identifying the enemy's vulnerability is important so that the force can mass direct and indirect fires and maneuver against that weakness. The TF isolates a portion of the enemy to achieve the desired combat ratio at the point of assault. It achieves mass by hitting the enemy from multiple directions and by narrowing attack zones to concentrate its force against a smaller defending element.

(2) When the attack requires breaching two or more complex obstacle systems, the commander must retain enough engineers and sufficient breaching assets to reduce subsequent obstacles. The commander must not commit all the engineers to breach the first obstacle system unless he is willing to risk his capability to breach follow-on obstacles. Depleted engineer forces need significantly more time to conduct follow-on breaches.

(3) In task organizing for a combined arms breach during a deliberate operation, the TF commander considers having a support force task-organized with weapons capable of a high volume of direct suppressive fires. The breach force disposition and composition is METT-TC dependent and determined by combat power required to secure the point of breach and the reduction assets required to create the lanes.

(4) The commander maneuvers his combat power to create sufficient suppression and security for the breach to be successful. Adequate suppression, obscuration, and security trigger the commitment of assault and breach forces. When the breaching site is free of direct fires, the commander deploys the breach force to create lanes through the obstacle. The commander must sense the progress of the breach so he can decisively commit the balance of the force through the obstacle to continue the mission.

(5) The breach and assault forces may require fires and smoke under their control in addition to that controlled by the support force. The support, breach, and assault forces place direct fires on enemy positions. This makes synchronization of direct and indirect fires extremely complex. Fire control must be planned in detail using simple and well-understood control measures carefully rehearsed.

(6) When a brigade conducts a combined arms breach during a deliberate operation or plans to conduct a passage of lines of a large force after a breach, breach plans must include detailed planning for the staging and movement of follow-on forces and equipment.

b. **Preparing**. The TF continues an aggressive intelligence collection plan using scout platoons, engineers, patrols, and aerial reconnaissance. The S2 and the TF engineer continually refine the template based on hard intelligence. The TF may adjust task organization as it uncovers more details of the defense and obstacle system. It also uses this information during the combined arms rehearsals.

(1) Continuous and aggressive intelligence-gathering operations update the enemy template as available. These changes are reflected as soon as possible in the rehearsal area. If updates become available after the last possible rehearsal, this data must be passed immediately to the affected force elements, especially the breach force.

(2) The TF meticulously plans, manages, and controls the rehearsals. The TF S3 allocates time for each unit to perform a combined arms TF rehearsal. When possible, the force rehearses the operation under the same conditions expected during the actual engagement, including battlefield obscuration, darkness, NBC posture, and inclement weather. The rehearsal site reflects the actual obstacle system in as much detail as possible. The force chooses terrain as similar as possible to that of the operational area and constructs a practice obstacle system based on OBSTINTEL. Rehearsals include a leader and key personnel walk-through as well as individual rehearsals by support, breach, and assault forces.

(3) When the force commander rehearses the breaching operation, he also rehearses several contingency plans. The contingencies should include possible enemy

counterattacks by counterattack forces and attack by enemy indirect fire systems (artillery, rockets, attack helicopters, and other air assets). Rehearsals also include enemy use of NBC munitions.

c. **Collecting Obstacle Intelligence**. The success of combined arms breaching during a deliberate operation depends heavily on the success of the ISR plan. The scheme of maneuver is based on known and templated intelligence of enemy positions and obstacles. NAIs are developed to confirm or deny the template. As confirmed intelligence reports come in, the template and ISR plan are updated and revised. The S2 develops the collection plan, with the scout platoon concentrating on confirming enemy locations. The engineers focus on gathering intelligence on obstacle orientation and composition as well as on the types of fortifications the TF may encounter. Confirmed intelligence is used to refine the task organization of support, breach, and assault forces and the scheme of maneuver.

d. **Executing**. The force crosses the LD organized to conduct the combined arms breach. If the TF encounters obstacles en route, it executes the breach with this organization. On arrival, the TF's scout platoon adjusts artillery fires on the enemy positions to cover deployment of the support force. The support force moves into position and establishes its SBF position. Breach and assault forces move into position and prepare to execute their tasks. The TF commander continues to incorporate last-minute information into his plan and makes final adjustments of positions and locations.

(1) The support force occupies its SBF position and immediately begins suppressing with a volley of fires. The support force FSE and TF FSO execute group targets planned on enemy positions. Mortar and artillery smoke are adjusted to obscure the breaching site from enemy target acquisition. The breach force begins movement once suppression and smoke are effective, based on clearly defined commitment criteria. Timing is critical since the high volume of suppressing fires and smoke can be sustained only for a short duration. SBF positions have interlocking sectors of fires and are positioned to ensure suppression of the enemy's positions.

(2) Once suppression and obscuration have built to effective levels, the breach force moves forward to the breaching site. The engineers create the lanes, while the combined-arms breach force provides for local security. As they finish the lanes, engineers create and send a digital overlay to assist the assault and following forces in maneuvering to the lanes. The assault force penetrates the objective after receiving the order from the TF commander. Due to the complexity of the breach, the command and control systems spread out to ensure synchronization. The TF S3 controls the multi-company team support force while the TF commander positions himself where he can best control the entire breaching operation.

e. **Continuing the Attack**. The obstacle system acts as a choke point and is dangerous even after the TF has overcome the defenses.

(1) The TF constructs additional lanes to speed the passage of follow-on forces. Next, it widens the lanes to allow two-lane traffic through the obstacles and constructs switch lanes to prevent blocking by disabled vehicles or artillery fires. Deliberate marking and fencing systems are installed, and military police establish the necessary traffic control. Eventually, rear-area engineer forces clear the obstacles and eliminate the choke point. After passage through the lanes, the maneuver force continues its mission.

(2) Both the breaching and follow-on force must be aware of the potential for the enemy to reseed breached obstacles with remotely delivered SCATMINEs or other rapidly emplaced obstacles. The breaching commander may develop a response plan and position remaining mobility assets in the vicinity of the breach lane(s) to rebreach, repair, or improve lanes as necessary. In addition, the commander may develop a reaction plan for maneuver or other forces that encounter a reseeded portion of the obstacle while passing through the lane. The commander of the follow-on force, regardless of the reported status of the breach lanes he is about to pass through, should organize mobility assets forward in his formation that are prepared to rebreach, repair, or improve these lanes as necessary.

12-19. COMBINED ARMS BREACH DURING HASTY OPERATIONS

Hasty operations are conducted when the enemy situation is vague and the commander may be required to execute the combined arms breach with his current task organization. Therefore, the TF commander must either task-organize his subordinate company teams with sufficient combat power to conduct company team level breaching operations or have a plan that allows for the flexible application of combat power necessary to execute breaching operations. When conducting offensive operations such as a movement to contact, while participating in an exploitation or pursuit, and when conducting passage of lines (forward or rearward) and movements through defiles, the TF commander must address breaching operations. The TF breach planning considerations and process discussed previously apply to combined arms breach planning during hasty operations as well. The only difference is the organizational echelon at which the breach is planned, prepared for, and executed.

a. **Planning**. Breach planning begins with IPB and engineer battlefield assessment (EBA) as part of the command and engineer estimate. The TF S2 and engineer jointly develop a SITEMP of the enemy disposition, most probable COA, and OBSTINTEL. The SITEMP is the focal point of force allocation and breach planning. If little is known about the situation, the S2 and the engineer identify areas where the enemy is likely to use obstacles or has used obstacles in recent operations. The engineer and S3 should also request information from higher headquarters on recent friendly use of obstacles in the area of operations.

(1) ***TF Task Organization***. Subsequent to COA development, the commander and staff anticipate where units are most likely to encounter obstacles based on the scheme of maneuver and SITEMP. From this analysis, the commander refines his task organization, if necessary, in order to apply the combat power required to execute the templated breach. Additionally, the engineer recommends a task organization of engineer platoons and critical breaching equipment to create enough lanes for the breaching unit. He maintains a mobility reserve under his control that can create additional lanes for follow-on forces,. This mobility reserve can also mass mobility assets if the TF must transition to a deliberate operation. The TF FSO designs his fire plan to provide priority of fires and smoke to company teams likely to conduct a breach. The ADO decentralizes the positioning of air defense weapons to provide local coverage of company teams during actions on contact and at obstacles. Above all, the commander task-organizes company teams for the mission first. He then modifies the task organization where necessary to

provide company teams with the additional forces needed to conduct independent breaching operations as part of the TF effort.

(2) ***Company Team Task Organization***. A force plans for the hasty operation breach by appropriately task-organizing subordinate TFs or company teams. The subordinate commander develops the details necessary for success. In a TF hasty operation breach, the company team commander further task-organizes his force and designates specific support, breach, and assault forces. Since conducting the breach involves only committing the combat power within the company team, the team commander incurs the responsibility to develop plans that synchronize the breaching effort and achieve the breaching fundamentals (SOSRA). The assault force moves through the lanes, deploys, and continues the attack to destroy the defending enemy forces. Company team breach planning is deliberate. It requires the team commander to develop a team scheme of maneuver or an immediate action drill that maneuvers support, breach, and assault forces (platoons) to apply SOSRA breaching fundamentals on obstacle contact (Table 12-1, page 12-26). If the enemy situation is unknown, then support, breach, and assault forces execute their missions on order as part of an action-on-contact drill.

b. **Preparing**. Preparation for the breach focuses on subordinate TF or company-level rehearsals. The success of the TF breach depends on the ability of company teams to react quickly to enemy or obstacle contact. The TF assists company teams in preparing for the mission by constructing and managing rehearsal sites that team commanders can use to drill their units on actions on contact and at obstacles. The TF engineer ensures that engineer platoons and breaching equipment link up with maneuver units early to maximize the opportunity to rehearse as a combined arms team. Company team commanders include their complete task organization in all orders, briefbacks, rehearsals, and precombat inspections (PCIs). The TF minimizes the time spent on TF rehearsals and briefbacks to allow company team commanders more time with their units. During TF rehearsals, discussion centers on how critical breaching assets will shift to support company team breaching operations and on the transition to a deliberate breach.

c. **Collecting Obstacle Intelligence**. The ability of the force to collect timely and accurate OBSTINTEL, both before and during the attack, has tremendous impact on the success of the breach. A TF commander elects to breach when the situation is vague or when intelligence indicates that a company team can overwhelm enemy obstacles and fires. The breach will fail if the company team does not have enough combat power to suppress the enemy's fires or enough breaching equipment to reduce the obstacles. Therefore, the size of the enemy force and the type of obstacle are priority information requirements for reconnaissance.

(1) Engineer forces are attached to the scout platoon to gather detailed intelligence on obstacle locations, composition, and orientation. Like any specialized collection asset, the engineer squad works for the scout platoon leader and is integrated into the total TF collection plan. The S2 and engineer provide the scout platoon with specific NAIs for the engineer squad to reconnoiter. The squad sends its reports on the scout platoon net.

(2) OBSTINTEL collection is particularly difficult when the breach is part of a movement to contact. Although engineers may be attached to the scout platoon, their ability to close with and gather detailed OBSTINTEL in time for the advance guard or main body to react is limited. Furthermore, organizing for a breach in a movement to contact quickly consumes the number of engineers available for the reconnaissance

effort. The commander must weigh the effects that dedicating an engineer squad to reconnaissance will have on his organization and its ability to transition to a deliberate breach against the effect this will have on other engineer missions.

(3) A breaching element must continue to gather intelligence and develop the situation during the attack. Early detection of obstacles is essential for maintaining momentum and for the timely commitment of engineers.

d. **Executing**. Execution of the breach is the responsibility of the subordinate commander. The company team commander applies the SOSRA breaching fundamentals by synchronizing the efforts of his vehicles, infantry, indirect fires, and engineer assets. When breaching during a hasty operation, the company team commander achieves synchronization by executing well-rehearsed actions at obstacles. Platoons execute their support, breach, and assault missions as part of the scheme of maneuver when the company team's breach is part of the TF plan of attack.

(1) The TF commander has two roles in a breach during hasty operations. Both are crucial to company team breaching efforts. First, he ensures that the company team receives the appropriate level of combat power and engineer assets, as well as the planned priority of indirect fires and smoke, but he still allows the company team commander to fight his battle. Second, the commander ensures that the additional combat power and mobility assets required to transition to a TF deliberate operation breach are positioned to assume the responsibilities of the breach force. The commander closely monitors the company team breaching effort so he can decisively commit his force to the breach, if necessary, with minimal loss of momentum.

(2) During hasty operations, such as movement to contact or pursuit, the breach is normally conducted when no obstacle bypasses are found. The breach maintains the momentum of the attack by denying the enemy time to mass forces to cover the obstacles. Proper integration of engineers and breaching assets into TF and company team formations (positioned forward and organized in a manner that allows efficient introduction of the required breaching assets) is critical to the success of the breach. Because the exact location and nature of enemy forces and obstacles are unknown, engineers and breaching assets must be distributed carefully to allow the commander to move securely while maintaining forward-deployed breach and assault forces.

(3) A TF needs at least one lane for each assaulting company team (vehicle-mounted) and one footpath per assaulting platoon (dismounted). The distance between lanes is inherently tied to the scheme of maneuver, the complexity of the terrain, and the composition and disposition of the overwatching force. General guidelines for the distance between lanes are 800 to 1000 meters between vehicle lanes (based on the complexity of the terrain and the probability of enemy SCATMINE employment) and up to 100 meters between footpaths (normally based on the ability of the support force to achieve suppressive fires). Constructing and marking each vehicle lane requires an engineer squad reinforced with breaching equipment, such as MICLICs, task-organized to the company team executing the breach. A third squad is required to provide depth and flexibility to the TF mobility effort. A main effort TF, therefore, integrates an engineer platoon throughout its maneuver formations when task-organizing for breaching operations during hasty operations. Supporting a TF breaching operation with fewer engineers decreases the probability of success.

(4) Engineer integration into TF formations must provide lead company teams with immediate breaching capability and maintain the flexibility to shift assets to where they are needed. Engineer platoons reinforced with special breaching assets from the engineer company are integrated directly into the combat formations of the lead company teams. An engineer squad is maintained under TF control as a mobility reserve. This squad maneuvers at the center of the TF formation or as an echelon of the company team that is most likely to need engineer support. The engineer platoon leader moves with the TF, positioning himself where he can best control assets under his control and track the efforts of his detached platoons.

(5) The tactical situation often requires a TF to modify its combat formation. Maneuver units train constantly to accomplish this quickly and efficiently; field SOPs outline required actions in great detail. Engineers integrating into the formation must adjust rapidly to maintain engineer and breaching assets with lead company teams. Transition from a vee formation to a column formation and vice versa is not complicated; engineers remain integrated in lead company team formations. Transitioning from a wedge to a column, however, can be more difficult. Ideally, a transition to a column formation should result in engineers supporting the first two company teams in the column.

(6) Regardless of which formation the TF uses, the TF combat trains usually travel just in front of or just behind the trail company team. Combat trains usually transport critical engineer Class V materials, such as an emergency resupply of demolitions and MICLIC reloads. The commander, engineer, and S4 anticipate when these assets might be used and develop a plan for rapidly moving them forward.

(7) Integrating engineers into the force continues at the company level. The company team commander determines which combat formation is appropriate for each phase of the attack. The engineer platoon leader must fully understand the company team scheme of maneuver and which formations it will use, and he must anticipate changes in formation. Close coordination between the engineer and maneuver company team commanders is vital to ensure support is at the right place at the right time.

(8) An engineer platoon normally maneuvers with three M113s and one or two AVLMs. The carriers do not tow trailers except for MICLIC launchers, if so equipped. AVLBs and ACEs augmenting the platoon move behind the company team. They remain one terrain feature back, guiding on the trail element, and are always within support range. A good technique is to maneuver AVLBs and ACEs with the company team trains under the control of the engineer platoon leader or the team first sergeant.

(9) For definitive information on how HSS is provided for breaching operations, see FM 4-02.4. In addition, plans must be in place for clearing casualties off the battlefield since increased numbers of casualties should be anticipated during a breach operation. Each company team requires an ambulance for casualty evacuation.

Section VII. TACTICAL ROAD MARCH

The battalion task force conducts two kinds of movement: administrative and tactical. An *administrative movement* considers tactical implications, but its primary emphasis is on expediting movement and conserving time and energy. Administrative movements are based on the assumption that contact with the enemy during or shortly after the move is unlikely. A *tactical road march* is a rapid movement used to relocate units in a combat

zone in order to prepare for combat operations. Although hostile contact is not anticipated, the unit must maintain security measures and be prepared to react to enemy contact. At battalion task force level and higher, the S3 is responsible for planning tactical road marches. The S4 has primary staff responsibility for planning administrative movements, but he coordinates his plans with all other staff members.

12-20. MARCH ELEMENTS

The elements of a road march include the march column, serial, and march unit.

a. **March Column**. A march column includes all elements using the same route for a single movement under control of a single commander. A battalion task force may march over multiple routes to reduce closing time. A large march column may be composed of a number of subdivisions, each under the control of a subordinate commander.

b. **Serial**. A serial is a subdivision of the march column. It consists of elements of a march column moving from one area over the same route at the same time. All the elements move to the same area and are grouped under a serial commander. A serial may be divided into two or more march units.

c. **March Unit**. A march unit is the smallest subdivision of a march column and normally consists of no more than 25 vehicles using the same route for a single movement and under the control of a single commander. It is normally a squad, section, platoon, or company team. It moves and halts under control of a single commander using voice and visual signals. It uses radio only when it can use no other means of communication.

(1) ***Prior to Executing the Movement***. Before starting a march, each march unit of a serial reconnoiters its route to the start point and determines the exact time to reach it. The movement order states the time the serial will arrive at and clear its start point. The serial commander then determines and announces the times for march units of his serial to arrive at and clear the start point. Arrival time at the start point is critical. Each march unit must arrive at and clear the start point on time; otherwise, movement of other elements may be delayed.

(2) ***During the Movement***. During movement, march units move at the constant speed designated in the order, maintaining proper interval and column gap. Elements in a column of any length may simultaneously encounter many different types of routes and obstacles, resulting in different parts of the column moving at different speeds at the same time. This can produce an undesirable accordion-like action or whip effect. The movement order gives march speed, rate of march, and maximum catch-up speed. March units report crossing each control point as directed by the march order. They maintain air and ground security during the move.

12-21. MARCH COLUMN ORGANIZATION

March columns, regardless of size, are composed of four elements: reconnaissance party, quartering party, main body, and trail party. March columns are organized to maintain unit integrity and to maintain a task organization consistent with mission requirements. An element or a group of elements in a march column receives a numerical or alphabetical designation for planning, scheduling, and controlling.

a. **Reconnaissance Party**. Engineer and other CS assets may augment the reconnaissance party. It performs route reconnaissance to determine travel time, capacities of underpasses and bridges, and locations of ferries and fords; it identifies critical points, including choke points and obstacles. Route reconnaissance confirms and supplements data from map studies, higher headquarters, and air reconnaissance. Instructions to the reconnaissance party should state the nature and extent of information required and the time and place the report is to be submitted.

b. **Quartering Party**. The quartering party normally consists of representatives from company teams or attached units. It reconnoiters the new area, marking unit positions and guiding the march column elements into these new positions as they arrive. (See Section II for additional information on quartering party responsibilities when occupying an assembly area.)

c. **Main Body**. March units of the main body consist of individual maneuver units with their trains, TF mortars, any attachments, the TF CP, and the TF trains. POL vehicles required for refueling during nontactical marches may move ahead of schedule to establish a service station refuel point.

d. **Trail Party**. The trail party normally consists of elements of the TF maintenance platoon and medical support. The trail party is the last march unit in a TF serial, consisting of elements of the maintenance platoon led by the BMO. The function of the trail party is to recover disabled vehicles. If at all possible, some security element such as an additional mechanized infantry platoon should accompany the trail party for protection.

(1) ***Mechanical Failures***. If a vehicle cannot be repaired or towed, it is moved off the road and into a secure area. The drivers and crewmembers, supplied with sufficient food and water, remain with the vehicle. The BMO reports the location and reason for leaving the vehicle behind to the battalion task force S4.

(2) ***Recovery***. Once the trail party completes the road march, maintenance priority becomes the recovery of disabled vehicles. A tactical road march is not complete until all march units and vehicles arrive at the destination.

12-22. TECHNIQUES

The purpose of conducting a road march is to relocate rapidly, not to gain contact with the enemy. Road marches are performed at fixed speeds and during timed intervals. The road march must be organized to meet mission requirements and provide organizational control. The three basic types of techniques are closed column, open column, and infiltration.

a. **Closed Column**. Closed column is normally used during limited visibility or on poorly marked or congested roads. It is characterized by vehicle intervals of 25 to 50 meters. This technique takes maximum advantage of the traffic capacity of the route but provides little dispersion of vehicles.

b. **Open Column**. In open column, the distance between vehicles is increased for greater dispersion. It is characterized by vehicle distance of approximately 50 to 200 meters; however, the factors of METT-TC determine actual dispersion. Open column is normally used during daylight but may be used at night with blackout lights or thermal vision equipment. Open column is normally used on well marked routes with good visibility.

c. **Infiltration**. Infiltration has no defined structure. During a move by infiltration, vehicles are dispatched individually, in small groups, or at irregular intervals at a rate that keeps the traffic density down and prevents undue vehicle massing. Infiltration provides the best possible passive defense against enemy observation and attack. It is suited for tactical marches when sufficient time and road space are available and when maximum security, deception, and dispersion are desired or directed.

12-23. PLANNING CONSIDERATIONS

Road marches require extensive planning. Commanders and staff use the military decision-making process to determine how best to execute a move from one point to another. (Refer to FM 55-10 for a detailed discussion of movement planning considerations, terms, and movement time computation.)

a. **Factors for Consideration**. The following factors are considered when planning a road march:

- Requirements for the movement.
- Organic and nonorganic movement capabilities.
- Unit movement priorities.
- Enemy situation and capabilities, terrain conditions, and weather.
- Organization of the TF.
- Security measures before and during the movement and at the destination.
- Assembly of the march units.
- Actions at the destination.

b. **Sequence of Road March Planning**. When preparing for a tactical road march, the battalion task force uses the following sequence of march planning, as time permits.

(1) Prepare and issue an oral warning order as early as possible to allow subordinates time to prepare for the march.

(2) Analyze routes designated by higher headquarters and specify organization of the march serial.

(3) Prepare and issue the march order.

(4) Prepare a detailed movement plan and assembly area plan.

(5) Organize and dispatch reconnaissance and quartering parties as required.

12-24. MOVEMENT ORDER

The movement order format is the same for administrative and tactical movements, IAW FM 101-5. The movement order is prepared as an annex to an operation order, as a separate operation order, or as a FRAGO.

12-25. CONTROL MEASURES

The commander uses the control measures discussed in the following paragraphs to assist in controlling the task force during the road march.

a. **Graphics**. Road march graphics should include, at a minimum, the SP, RP, and route.

(1) ***Strip Map***. The TF strip map should depict the following (Figure 12-8, page 12-38).

- Start point.
- Release point.

- Scheduled halts.
- Convoy routes.
- Major cities and towns.
- Critical points and checkpoints.
- Distance between CPs.
- North orientation.

(a) A start point is a well-defined point on a route at which movement of vehicles falls under the control of the movement commander. It is at this point that the column is formed by the successive passing, at an appointed time, of each of the elements comprising the column. The SP should be an easily recognizable point on the map or on the ground. It should be far enough from the assembly area to allow units to be organized and moving at the prescribed speed and interval when the SP is reached.

(b) A release point is a well-defined point on a route at which the elements comprising a column return to the authority of their respective commanders. At the RP, each element continues its movement toward its own destination. Multiple movement routes from the RP enable units to disperse rapidly and navigate to their assembly areas or areas of operation.

(c) Scheduled halts may be needed to provide rest, mess, refuel on the move sites, and maintenance. Dining and refueling halts should coincide, if possible.

(d) Critical points or checkpoints on a route are places used for information references, places where obstructions or interference with movement might occur, or places where timing may be a critical factor. They are also used as a control measure for control and maintenance of the schedule. Guides or signs may be used at designated critical points and or checkpoints to ensure the smooth flow of movement.

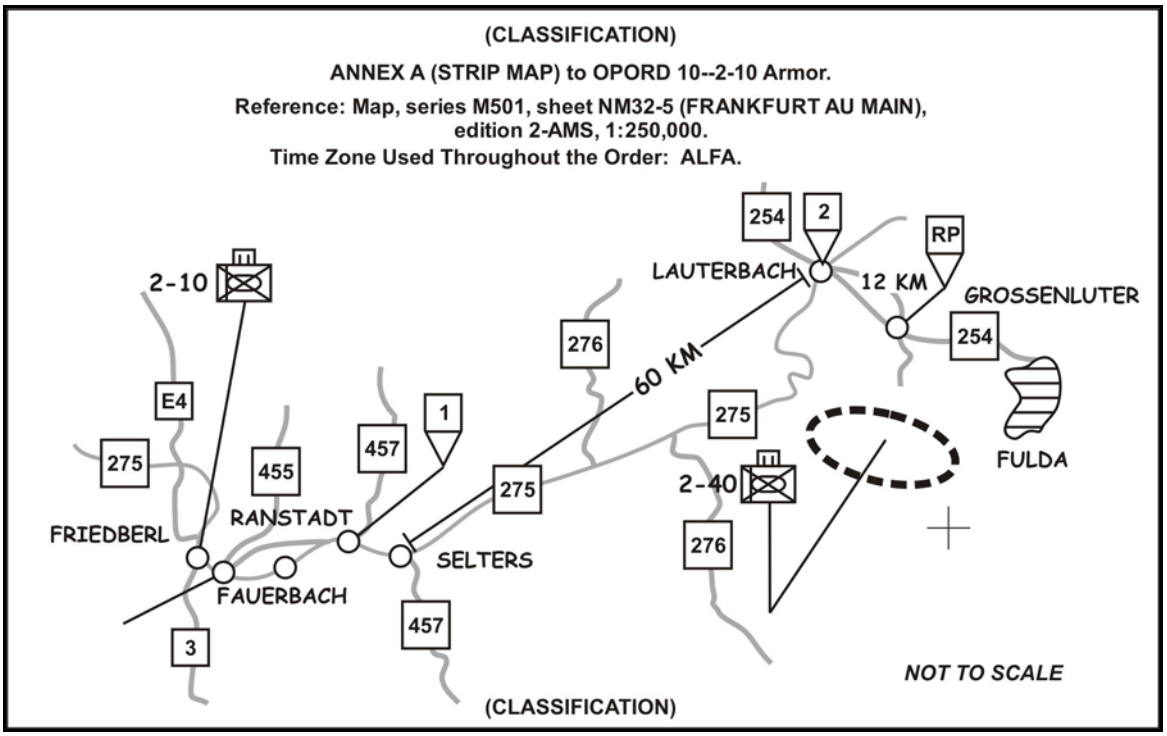

Figure 12-8. Example battalion task force strip map.

(2) ***Digital Overlays***. In units eqipped with FBCB2, digital overlays enhance mounted navigation. They display waypoints and other information concerning unit locations along the route of march and facilitate maintaining a COP.

b. **Communications.** Messengers and visual signals are the preferred means of communication during road marches. Because the enemy has radio direction-finding equipment, the TF uses radio only in emergencies and when it can use no other means of communication. The TF can also use road guides to pass messages from one march unit to a following march unit. Because of the need to stay off the radio, road guides are important in controlling the speed of march units and the interval between them.

c. **Traffic Control**. The headquarters controlling the march may post road guides and traffic signs at designated traffic control points. At critical points, guides assist in creating a smooth flow of traffic along the march route. Military police, members of the task force scout platoon, or designated elements from the quartering party may serve as guides. They should have equipment or markers that will allow march elements to identify them in darkness or other limited visibility conditions. There is normally an RP for every echelon of command conducting the road march. Traffic problems may arise if actions at each of these points are not well rehearsed.

12-26. SECURITY

During the movement, march units maintain security through observation, weapons orientation, dispersion, and camouflage. Commanders assign sectors of observation to their personnel to maintain 360-degree observation. Main weapons are oriented on specific sectors throughout the column. The lead elements cover the front, following elements cover alternate flanks, and the trail element covers the rear.

a. **Halts**. While taking part in a road march, the march elements must be prepared to conduct both scheduled and unscheduled halts.

(1) ***Scheduled Halts***. Scheduled halts are planned along the march route for maintenance and rest or to follow higher level movement orders. At scheduled halts, vehicles and soldiers move to the side of the road while maintaining march dispersion. Local security is set up immediately, and drivers perform during-operations maintenance checks. The unit is ready to move at a moment's notice.

(2) ***Unscheduled Halts***. Unscheduled halts and actions may be caused by unforeseen developments such as obstacles, traffic congestion, or equipment failure. If a halt is necessary, the march column's first priority is to establish security.

b. **Air Defense**. Planning for air defense and implementing all forms of air defense security measures are imperative to minimize the TF's vulnerability to enemy air attack. The TF commander must integrate his fire plans effectively with the attached air defense artillery assets. Furthermore, he must ensure the TF plans and uses all passive and active air defense measures that can be implemented at company level. Each vehicle in a motor march has an air guard to provide air security. Specific vehicles may be designated as air guard vehicles performing air rather than ground observation.

c. **Obstacles**. The TF should bypass obstacles reported by the scout platoon if possible. If it cannot bypass obstacles, the lead march unit goes into a defense to cover and overwatch and breaches the obstacle, working with engineers if available. As the lead march unit breaches the obstacles, the other march units move at decreased speed or move off the road and monitor the TF command net.

d. **Enemy Indirect Fire**. Should the TF come under attack by enemy indirect fire during the road march, the unit in contact continues to move. The remainder of the TF attempts to bypass the impact area.

e. **Enemy Air Assault**. Should the TF be attacked by hostile aircraft during the march, the march unit under attack moves off the road into a quick defensive posture and immediately engages the aircraft with all available automatic weapons. The rest of the TF moves to covered and concealed areas until the engagement ends.

f. **Disabled Vehicles**. Disabled vehicles must not obstruct traffic. They are moved off the road and their status reported immediately. Security is established, and guides are posted to direct traffic. If the operator repairs the vehicle, it rejoins the rear of the column. If the operator cannot repair the vehicle, trail party maintenance elements pick it up.

g. **Restrictions**. Restrictions are points along the route of march where movement may be hindered or obstructed. These points can include bridges, intersections, ferries, and bypasses. The march planner should stagger start times or adjust speeds to compensate for restrictions, or he should plan to halt the column en route until the restriction is over.

h. **Limited Visibility**. Units must be able to operate routinely under limited visibility conditions caused by darkness, smoke, dust, fog, heavy rain, or heavy snow. Limited visibility decreases the speed of movement and increases the difficulty in navigating, recognizing checkpoints, and maintaining proper interval between units. To overcome command and control problems caused by limited visibility, commanders may position themselves just behind lead elements. More restrictive control measures, such as additional checkpoints, phase lines, and use of a single route, may become necessary.

Section VIII. ASSEMBLY AREA OPERATIONS

An assembly area is a location where a force prepares or regroups for further action. While in assembly areas, units execute the organization, maintenance, resupply, and personnel actions necessary to maintain the combat power of the force. Designation and occupation of an assembly area may be directed by a higher headquarters or by the unit commander during relief or withdrawal operations or unit movements.

12-27. ASSEMBLY AREAS

Assembly areas are areas occupied by forces where enemy contact is likely and commitment of the unit directly from the assembly area to combat is possible or anticipated. Examples of units likely to be in assembly areas include units designated as tactical reserves, units completing a rearward passage of lines, units preparing to move forward to execute a forward passage of lines followed by offensive operations, units performing tactical movements, and units conducting reconstitution. Assembly areas should provide--

- Concealment from air and ground observation.
- Cover from direct fire.
- Terrain masking of electromagnetic signal signature.
- Sufficient area for the dispersion of subunits and their vehicles consistent with the enemy and friendly tactical situation.
- Areas for unit trains, maintenance operations, and C2 facilities.

- Suitable entrances, exits, and internal routes. (Optimally, at least one all-weather paved surface road transits the assembly area and connects to the MSR in use.)
- Terrain allowing the observation of ground and air avenues of approach into the assembly area.
- Good drainage and soil conditions that support unit vehicle movement.

12-28. ORGANIZATION

Battalion task force tactical assembly areass may be organized using one of three methods.

a. **Method 1**. The TF may occupy a portion of the perimeter of a brigade assembly areas. It does so by arraying company teams, generally on a line oriented on avenues of approach into the assembly area. Leftmost and rightmost units tie in their fires and areas of observation with adjacent units of other battalion task forces. Depending on the tactical situation and width of the area assigned to it, the TF may maintain a reserve. TF trains are located to the rear of the company teams. The TF mortar platoon and the main CP are located centrally in the assembly area where they can communicate and support units by fire. The scout platoon screens along the most likely or most dangerous avenue of approach.

b. **Method 2**. The TF may assign sectors to subordinate company teams and require them to tie in their fires and observation with each other. The main CP, trains, and mortar platoon are located near the center of the assembly area. Ideally, company team sectors are assigned to balance the task organization against the appropriate enemy avenue of approach. The scout platoon occupies observation posts at key points around the entire perimeter of the TF or screens along the most dangerous or likely avenue of approach. This method configures the TF in a perimeter defense with company teams oriented outward. This is the most common organization of TF assembly areas.

c. **Method 3**. The TF may assign separate individual assembly areas to subordinate company teams, which establish their own 360-degree security. Areas between company teams are secured through surveillance and patrolling. The main CP, trains, and heavy mortar platoon establish positions central to outlying company teams. If the TF is dispersed over a large area, SHORAD assets (if available) may need to collocate with company teams for adequate air defense.

NOTE: The battalion task force usually establishes echelons of trains by locating the field trains with the FSB in the BSA and positioning the combat trains centrally within the assembly area. However, when the parent unit is located in the rear area and not designated as a tactical reserve, the brigade does not form a BSA. In this case, the TF establishes unit trains in the center of its assembly area.

12-29. QUARTERING PARTY

A quartering party is a group of unit representatives dispatched to a probable new site of operations to secure, reconnoiter, and organize an area before the main body's arrival and occupation. Unit SOPs establish the exact composition of the quartering party and its transportation, security, communications equipment, and specific duties. Quartering

parties typically reconnoiter and confirm the route and tentative locations previously selected from map reconnaissance. Quartering parties also serve as a liaison between their parent headquarters and the quartering party of their higher headquarters to change unit locations in the assembly area based on the results of their reconnaissance.

a. **Planning Considerations**. The S2 routinely receives intelligence information from brigade headquarters throughout the TF's deployment and operations. From this information, the S2 determines the characteristics and likelihood of the air and ground threat to the quartering party during its movement to and occupation of the assembly area. This information assists the TF staff and the quartering party OIC in determining the mode of transportation and security required and the desirability of maintaining the quartering party in the assembly area during the movement of the rest of the TF.

(1) The quartering party typically moves to the new assembly area by infiltration. For security, it may move with another subunit quartering party, depending on the likelihood of enemy contact. In this case, it may be necessary to move as a march unit of a road march if the number of vehicles exceeds local SOP restrictions on vehicular infiltration. Ideally, the quartering party moves over the routes to be used by the TF and executes a route reconnaissance and time-distance check.

(2) The quartering party typically includes an OIC or NCOIC and representatives from the TF main CP, TF trains, and the TF's subunits. The S3 air, HHC XO, S1, S3 SGM, and CSM are potential quartering party leaders.

(3) Composition of maneuver company team quartering parties is usually determined by the company team commander but may be specified by the battalion task force commander. HHC representatives typically include NCOs from key support sections such as communications, maintenance, or supply. Representatives from the mortar platoon and the scout platoon are also represented in the quartering party.

(4) The main CP quartering party identifies potential CP locations based on tactical requirements such as cover and concealment and the line-of-sight signal requirements of FM radios.

(5) An alternative technique is to send the operation’s M577 with the quartering party to establish C2 while the TF main body is moving. If planning time is short, key members of the staff can move with the quartering party. This enables the staff to begin detailed planning immediately upon arrival in the assembly area. This technique also facilitates transitions to new missions by pre-positioning key staff members so planning can occur concurrently with the movement of the main body.

(6) When the TF employs echeloned trains, a combat trains representative accompanies the quartering party, and another quartering party is formed for the field trains. Unit SOP establishes the composition, deployment, and actions of the field trains quartering party.

(7) If the TF moves and occupies its assembly area as part of a brigade, the brigade makes all coordinations for fire support. If the TF moves and occupies the assembly area without FS planning by its higher headquarters, it conducts its own FS coordination.

(8) During its planning, the staff must determine combat service support requirements for the quartering party. The estimate of necessary supplies and equipment must cover the entire quartering party, including accompanying staff section representatives and CS and CSS assets.

(9) The quartering party may move under radio listening silence or other emission restrictive posture, especially during movement to tactical assembly areas.

b. **Preparation**. The quartering party OIC or NCOIC plans his operations through coordination with TF staff officers.

(1) ***Intelligence***. The S2 ensures the quartering party OIC and or NCOIC is aware of the current enemy situation, probable enemy courses of action, the weather forecast, and the terrain and vegetation likely en route to and in the new assembly area.

(2) ***Maneuver***. The OIC or NCOIC coordinates with the S3 to determine the mission of the quartering party, whether or not the quartering party is to remain in the assembly area and await the remainder of the TF, and the route and movement restrictions to be used by the quartering party. The OIC or NCOIC ensures subordinate unit quartering parties know where and when the TF quartering party will be located in the assembly area.

(3) ***Engineer Support***. The TF engineer coordinates with the quartering party OIC or NCOIC to determine whether sending engineer personnel with the quartering party for the reconnaissance and evaluation of routes, bridges, and cross-country mobility is recommended or required.

(4) ***Air Defense***. Air defense units may move with the quartering party en route to and in the new tactical assembly area. If air defense assets move with the quartering party, the air defense unit leader ensures he knows both the current and projected future weapons control status (WCS) and air defense warning.

(5) ***Command and Control***. After the OIC or NCOIC has completed his planning, he assembles the members of the quartering party at a time and place of his choosing to brief them. This briefing follows the standard five-paragraph field order format. Emphasis is on actions at halts and critical areas, actions of the quartering party in the assembly area, contingency plans, and procedures to request and receive CS and CSS. He should cover in detail medical evacuation procedures, actions on contact, and actions to take if separated from the quartering party.

c. **Execution**. The following considerations apply to quartering party execution:

(1) ***Maneuver***. The quartering party navigates by infiltration to the assembly area, generally along one route. If the quartering party moves along a route to be used by the main body and the main body has not yet sent a reconnaissance party forward, the quartering party conducts a route reconnaissance during its movement. The quartering party may also execute a time-distance check of the designated route. Driving the march speed of the TF's main body march units, the OIC or NCOIC notes the time and actual vehicle odometer distances between the CPs along the route. He reports these times and distances to the main CP after moving through the RP.

(a) Upon arrival in the assembly area, the quartering party navigates to assigned positions and executes the required reconnaissance. The quartering party also has the following responsibilities at the assembly area:

- Determines locations for individual vehicles.
- Identifies unit left and right limits of fire, records this information, and sends updates to the unit's commander.
- Determines the location for the main CP and records it.
- Verifies subordinate unit locations and sectors of fire to ensure there are no gaps in coverage.

- Ensures necessary routes are cleared.
- Transmits changes or updates to the main CP to alert the main body to changes in the route and assembly area.

(b) If reconnaissance of proposed locations reveals the area is unsuitable for occupation, the quartering party OIC or NCOIC attempts to adjust unit locations in the area assigned. If such adjustments do not correct the problem, he immediately notifies the S3 or commander.

(c) If an element of the main CP has accompanied the quartering party, it moves to the location reconnoitered by its representative and establishes forward C2 for the TF. If air defense assets have accompanied the quartering party, they occupy advantageous firing positions oriented on air avenues of approach. Representatives organize their respective areas by selecting and marking positions for vehicles and support facilities. If designated, guides move on order to preselected checkpoints or RPs to await main body march unit elements.

(d) If the TF quartering party is not going to remain in the assembly area, it does not depart the assembly area until all subordinate unit quartering parties have reported. The unit quartering parties should provide the results of their reconnaissance and identify requested changes to their tentative locations.

(e) Each commander or unit leader must decide if and when guides are required to assist in occupying the assembly area. Normally, the use of guides is planned for occupations during periods of limited visibility.

(2) ***Engineer Support***. In some cases, mobility support is required to repair or replace damaged bridging or roadways where no feasible bypass is available. Engineer units supporting the TF may accompany the quartering party to execute mobility operations.

(3) ***Combat Service Support***. CSS assets may accompany the quartering party. CSS elements generally conduct resupply and maintenance operations for the quartering party at scheduled halts or in the new assembly area.

12-30. OCCUPATION

Units position themselves in assembly areas in accordance with their parent unit's tentative plan. Quartering parties typically guide units into position. The units accomplish occupation smoothly from the march without halting or bunching of units at the RP. Subordinate units normally establish routes and separate SPs and RPs for march elements that extend from the march column's route or RP toward the march units' assembly area positions. This technique clears the route quickly, maintains march unit C2, and prevents bunching of units at the march column RP. The TF begins movement to the assembly area with an updated movement route, specific coordinates for vehicle locations, and a confirmed defensive scheme for occupation of the assembly area. This enables the TF to transition quickly from the road march into the actual occupation while maintaining overall security for the main body.

a. **Intelligence**. The S2 assists in planning the assembly area occupation by identifying enemy avenues of air and ground approach into the new assembly area and the degree and type of rear area threat to the TF in its new location. The S2 also identifies and disseminates the security requirements for the TF and begins preparing the R&S plan for the assembly area. In coordination with the S3, the S2 makes preliminary plans for

reconnaissance and surveillance tasks to be assigned to subunits in the TF, including the scout platoon.

b. **Maneuver**. The commander or S3 chooses a method for occupation (whole TF assembly area or separate subunit assembly areas) and tentative subunit locations based on METT-TC. He then considers selecting tentative assembly area locations. To operate effectively in the assembly area, selected subunits may have specific positioning requirements, such as being near mess units, near water for decontamination, or on hardstand for DS maintenance. Based on METT-TC, the commander or S3 develops contingency plans that address the possibility of significant enemy contact in the assembly area. Time available and the likelihood of enemy contact determines the level of detail in contingency plans. These plans typically include FS plans and alternate assembly areas or rally points in case the TF is forced out of its initial assembly area.

c. **Fire Support**. FS requirements are coordinated with units already positioned near the new assembly area. Support shortfalls between requirements and availability are coordinated with either higher or adjacent units. FS planning includes support for TF contingency plans in case of enemy ground contact.

d. **Engineer Support**. The type and extent of engineer support required in the assembly area depends on the anticipated length of stay, type and degree of enemy threat, terrain in the assembly area, and the follow-on mission of the TF. The TF is responsible for all mobility and survivability tasks in the assembly area.

e. **Air Defense**. Air defense planning for the tactical assembly area focuses on the selection of SHORAD firing positions that will allow the engagement of enemy aerial platforms along identified air avenues of approach. Depending on the commander's stated priority of protection, assets available, and task organization, air defense units may locate with supported TF subunits or in separate locations under TF control.

f. **Combat Service Support**. The S4 recommends CSS positioning and typically positions the combat trains near the TF main CP to allow wire communications between them. HHC support elements position themselves in relation to the TF TOC and the mortar platoon.

g. **Command and Control**. The XO and S2 determine tentative locations for TF C2 facilities from map reconnaissance based on METT-TC. The overriding consideration for selecting these locations is the ability of the various CPs to communicate higher, lower, and laterally. Establishing the main CP in the new assembly area should occur early in the occupation so subunit CPs can locate based on their requirement to communicate with the main CP.

12-31. ACTIONS IN THE ASSEMBLY AREA

The TF focuses all actions in the assembly area on preparing for future operations to include resupply, personnel replacement, maintenance, reorganization, rest, and the planning of future operations.

a. The TF initiates administrative personnel actions in the assembly area if time permits.

b. Maintenance activities concentrate on deadline faults and those degrading the unit's ability to shoot, move, and communicate. The unit pays special attention to those maintenance tasks that are too time-consuming or difficult to perform during combat operations.

c. The units conducts resupply actions in the assembly area to replenish items used in previous operations, to assemble stocks for future operations, and to replace damaged and contaminated supplies as required. Refueling during the move to the assembly area is easier and faster than refueling after arrival in the assembly area.

d. The unit conducts planning and preparation for future operations concurrently with maintenance and administrative activities.

e. The unit may require training if issued new or modified equipment while in the assembly area. Small unit training may be necessary if large numbers of replacement personnel are introduced into the unit, especially if significant numbers of key leaders are replaced.

12-32. SECURITY

Security comprises measures taken by a military unit to protect itself against surprise, observation, detection, interference, espionage, sabotage, or annoyance that may impair its effectiveness. Security is essential to the protection and conservation of combat power. It may be achieved by establishing and maintaining protective measures or through deception operations designed to confuse and dissipate enemy attempts to interfere with the force being secured. Effective security prevents the enemy from gaining an unexpected advantage over friendly forces.

a. **Security in the Assembly Area**. Forces in tactical assembly areas are provided a degree of security by their separation from the line of contact and by the presence of other units between them and the enemy. In corps and division rear areas, security is provided through rear battle contingency plans. If the assembly area is well forward, security is provided by proximity to other combat or CS units. In keeping with their mission and the tactical situation, units in tactical assembly areas employ active security measures. These measures include reconnaissance and patrolling, visual and electronic surveillance of ground and air avenues of approach, and establishment of OPs. Regardless of the security that may be provided by other units or agencies, the commander takes whatever actions or precautions he deems necessary to secure his command.

b. **Positioning of Company Teams**. The TF positions company teams with respect to avenues of approach and access routes into the assembly area. Company teams tie in their fires, observation, and patrolling with one another. This is fairly simple for the TF because the company teams typically occupy a portion of a TF perimeter and are immediately adjacent to another company team. Company teams exchange sector sketches, fire plans, and patrolling plans with adjacent units.

c. **Positioning of the Scout Platoon**. The scout platoon may be positioned in one of three ways to enhance the security of the TF:

- It can form a screen astride the most likely or dangerous avenue of approach.
- It can establish several temporary OPs and conduct patrols between them to provide a thin screen line that surrounds the entire assembly area.
- It can be positioned to observe an area that cannot be seen by other units in the assembly area.

Company teams may also be repositioned to observe these areas. GSRs allocated from brigade are either retained under TF control or, more typically, attached to the scout platoon.

d. **OPSEC**. The TF practices the usual OPSEC measures to enhance the security of the unit while in the assembly area. OPSEC includes active and passive measures that attempt to deny the enemy information about friendly forces. Units in the TF practice noise and light discipline, employ effective camouflage, and eliminate or reduce radio traffic. Other electronic transmissions such as jammers and radar are also restricted. Units may construct and employ uni-directional antennas to reduce electronic signatures.

e. **Noncombatants**. Movement of civilians and refugees near assembly areas is strictly controlled to prevent enemy sympathizers or covert agents from obtaining information about the TF. Units may remove unit markings and uniform patches in some cases to retain unit anonymity. When possible, the unit conducts rehearsals in areas not subject to enemy observation and performs extensive movements and resupply under limited visibility. OPSEC measures vary because of higher headquarters deception efforts.

f. **R&S Plan**. The TF R&S plan directs the employment of intelligence assets under TF control and assigns intelligence and security tasks to subordinate units. Company teams typically provide security patrols to their fronts and establish OPs in accordance with the R&S plan. The scout platoon also conducts reconnaissance and security tasks in accordance with the R&S plan. Patrols may be established to maintain contact between units when company teams occupy separate assembly areas.

12-33. DEPARTURE FROM THE ASSEMBLY AREA

The planning considerations for occupying the assembly area are based largely on the anticipated future missions of units. Units are positioned in the assembly area so they can depart the assembly area en route to their assigned tactical missions without countermarching or moving through another unit.

a. **Placement of Start Point**. Units departing the assembly area must hit the SP at the correct interval and speed. To achieve this, the SP must be located a sufficient distance from the assembly area to allow units to maneuver out of their positions and configure for the road march before reaching the SP. The SP for a TF movement should be located an adequate distance from the assembly area to permit the company teams to attain proper speed and interval before crossing it.

b. **Liaison Officers**. When unit-to-unit dispersion or terrain in the assembly area prohibits visual contact, LNOs maintain contact between departing units and return to their parent units to initiate movement at the correct time.